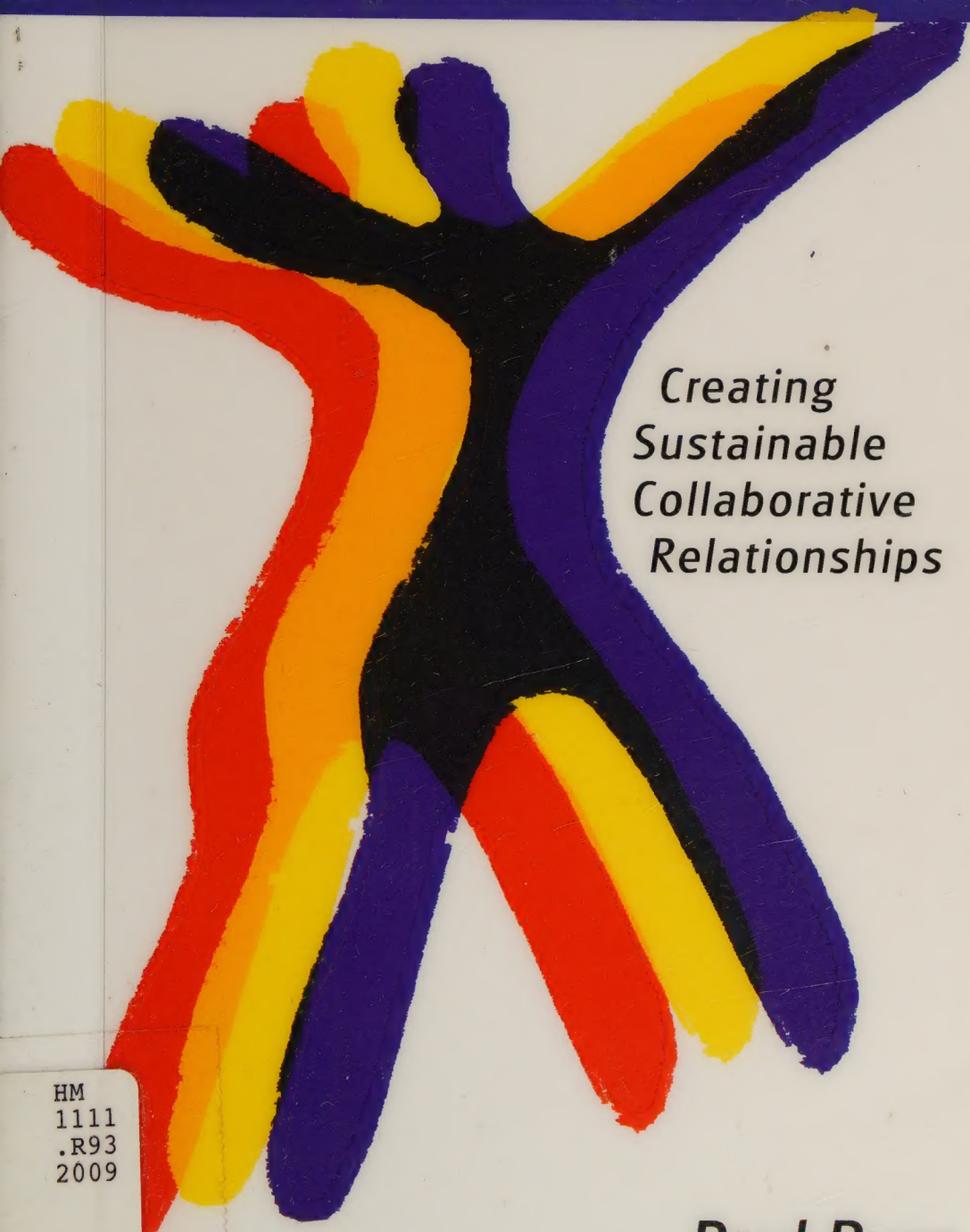
The Three Person Solution



Creating Sustainable Collaborative Relationships

Paul Ryan

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Creating Sustainable Collaborative Relationships

Paul Ryan

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for all the children

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Note to the Reader

The Three Person Solution uses three fundamental abilities that we all have but in different combinations. As a reader, you may want to understand how you habitually combine these abilities. To make such a self assessment possible, I have developed a questionnaire called "The Performance Profile." I suggest you take this questionnaire before reading this book so you can reference your abilities as you read. Please see Appendix II: The Performance Profile.

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See also www.earthscore.org.

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I am thankful to a host of people who contributed to Threeing. Some are named in this book or in earlier books and some are unnamed experimenters. Here I want to thank my partner Jean Gardner for living with and caring for this three person theorist; my brother Jim for many conversations about Greek drama, Shakespeare and Threeing; my brother Ken who gave me the opportunity to develop Threeing in the context of worker training; Frank Moretti and Jaimie Cloud who gave me opportunities to develop Threeing in educational contexts; Gerd Stern and Brenda Bufalino for their long-term support of my effort to develop Threeing in any context; The New School for institutional support; Myrdene Anderson for welcoming me into the world of semiotics; John Thornton for guiding the early development of this book as well as his help with the contract; Mark Watkins for the graphics; the staff at Purdue University Press—particularly Becki Corbin, Katherine Purple, and Bryan Shaffer; and my daughter Kyra Ryan for early editing of the manuscript.

INTRODUCTION

This book presents a way to create sustainable collaborative relationships among three or more people. I call this new way of relating "Threeing." At the heart of Threeing is a voluntary formal process in which three people take turns playing three different roles. By naming this book *The Three Person Solution*, I am claiming that the practice of Threeing can stabilize relationships among three or more people in a way that resolves an assortment of difficult interpersonal problems. Given this resolution, practitioners of Threeing can engage their world, and each other, without being caught up in a tangle of relational knots.

My desire to formalize three person relationships started while I was participating in a series of experiments that combined small group dynamics with video feedback. The experiments took place in 1970 at Roosevelt Hospital's Center for the Study of Social Change in New York City. Vic Gioscia directed the Center. As a video artist, I devised the small group video experiments. Al Scheflen, author of *How Behavior Means*, led a discussion after each experiment.

Scheflen had been part of a pioneering group of six professionals and six graduate students who spent years studying family therapy sessions on film, frame by frame. According to Sheflen's informal account, the impact of this research on the researchers was dramatic. All six graduate students had been married when the study began. All six divorced during the study. Close observation of the mutual behavioral constraints humans put on other humans was difficult for the graduate students to incorporate into their own lives. The professional researchers developed serious physical ailments. Scheflen himself began to go blind.

His research gave Scheflen a grim view of human behavior. He argued that it doesn't matter what poetry is going on in your head, a very restricted repertoire of behaviors control your interaction within small groups. We share this

repertoire with other mammals: greeting, parting, combat, courtship, territory, and a few others. "I can show you baboons doing the very same things," Scheflen said. He understood this entire repertoire of behaviors as two-party interactions or variations on two-party interactions. Below is a description of a behavioral experiment, incorporating video that I devised, which Scheflen characterized as a variation on combat behavior between two people.

Vic Gioscia and I sit in straight back chairs facing each other, talking. Two video cameras record the conversation. One camera frames a full body shot of Vic, and the other camera frames a full body shot of me. One week later, we watched the tapes as they play back, side-by-side on a split screen in slow motion, without sound. While watching the tapes, Vic imitates my movements and I imitate his movements. Simultaneously, we verbalize what we feel. Consciously verbalizing our own unconscious nonverbal interaction, there in front of us, "live on tape," brings revelations about our relationship.

Rocking back and forth in imitation of Vic talking to me, I hear myself saying, "Yeah, I'm listening to what you're saying, but I'm really getting ready to strike back."

Imitating Vic as he makes diminutive hand gestures, I say, "Let me make it nice and small, Ryan, so that you can understand it."

Imitating my movements and gestures, Vic makes equally revelatory remarks.

Each remark triggers full-bodied laughter of recognition.

While I could see what Scheflen was saying about being locked into dyadic behaviors, I thought that things need not be so grim. In the experiment described, video and humor freed Vic and me from complete behavioral determinism. Moreover, video provided an elegant tool for studying human behavioral patterns. Maybe, as an experimental video artist, I could understand these behavior patterns well enough to reconfigure them into new patterns that provided more flexibility for interpersonal relationships. Perhaps we could challenge the *de facto* insistence by humans on the primacy of two person patterns. Over the next five years, I produced more than thirty hours of three person experimentation and improvisation on video. I worked with trained dancers and people with no training. After each production session, I would watch the tapes over and over, looking for patterns of behavior that we could configure into stable three people relationships. As opposed to Scheflen's grim science of behavior, I wanted to initiate what I would later call an "autopoetic" art of behavior, that is to say, an art that would be self-organizing and self-regenerating.

My experimentation was guided by a new way of thinking. Through the Center for the Study of Social Change, I met the lucid theorist of communication,

Gregory Bateson. Trained as an anthropologist, Bateson helped found the field of family therapy. Rather than think about isolated individuals, Bateson thought about circuits of relationships. To think explicitly about three person relationships in terms of circuits, I followed the writings of Bateson's colleague, Warren McCulloch, to the writings of the American philosopher, Charles Peirce. Based on my readings of these three thinkers and my video work, I invented a new circuit for three person relationships that I named the "Relational Circuit."

In the history of art, the invention of *contrapposto* made possible freestanding statues in classical Greece, and the invention of perspective made possible paintings that depicted three-dimensional space on a two-dimensional surface during the Renaissance. This book explains how the invention of the Relational Circuit makes possible an art of behavior for three or more people in our current world. Using the Relational Circuit, I have configured a stable repertoire of cooperative behavior for three people. Amid the emergence of performance art in the 1970s and 1980s, I presented this nonverbal art of Threeing in various venues, including the Museum of Modern Art in New York City. Subsequently, I developed Threeing as a verbal communication tool for workers and educators.

I see relational confusion at the heart of much that holds back needed change in our world. Threeing is a Three Person Solution to relational confusion. Three people define their mutual relationships in terms of three roles. Through role playing, a clarity and ease about relationships emerges. Practice can cultivate and develop this clarity and ease into healthy sustainable relationships.

Our tendency is to view any three people interacting together through the lens of classic dramatic conflict. In Shakespeare's *King Lear*, two of his daughters form an alliance against the third daughter that has dramatic consequence. To understand Threeing, however, narrative expectations must be abandoned. In Threeing, the participants do not interact dramatically following a story line to an ending. Rather, the three interact recursively, following a circuit in ways that balance relationships. In a sense, we can describe Threeing as a "yoga" of relationships. When you learn Threeing, you stretch your capacity to relate in three different roles. Just as yoga can prevent back pain and mental malaise, Threeing can prevent relational confusion. Just as practicing yoga can keep a person healthy and thriving, so the practice of Threeing can keep relationships healthy and thriving.

Gregory Bateson once told me about a remarkable ritual among traditional Hawaiians. At the end of the year, everyone in the village sits in a circle. They offer each person the opportunity to speak. Whatever the person says begins with the phrase, "Untangle me." The speaker then describes how his or her relationship with someone else in the circle had become tangled during the year and asks everybody in the circle to help unravel what happened. For example, someone might say to another member of the community, "Untangle me. Last month at my

cousin's wedding, I overheard you talking about my troubles with my brother. I didn't like it." The person may then reply, "I am sorry you overheard, but I thought the person I spoke with could talk to your brother and help sort things out."

The circle then asks the person who was spoken to at the wedding and the brother to speak. Others may talk. Everyone sits together in the circle until each person has untangled his or her relational confusion with the help of the whole community.

In many traditional communities, people address and sustain the complete web of human relationships through appropriate rituals. In our modern societies, addressing and sustaining human relationships is more difficult. We live our high-speed lives amid multiple networks of people who do not know each other. Often, our parents do not know our friends. Our friends do not know our co-workers. Our co-workers do not know our siblings. No shared community organizes rituals that orchestrate our complex relationships. Without such a community, relational confusion is commonplace, even predictable. We expect relationships to become mixed up, tangled. Few of us have escaped the feelings of bewilderment and even shame that accompanies relational problems.

Threeing is not the answer to every relational problem. Nor does this book have all the answers about three person relationships. As the inventor of Threeing, I have blind spots regarding this invention and how it can be applied. Yet Threeing is a new way of relating that, I believe, can make a significant difference in untangling our complex lives and structuring sustainable relationships. Such relationships can reverberate widely, making desirable social change more possible on a significant scale.

As an innovator, I am addressing this book primarily to early adapters who work with the dynamics of small groups. Early adapters are opinion leaders that stand between an innovator and most of the people. Early adapters have the status and skill necessary to carry out innovations in their context. In this book, I have provided everything the early adapter needs to know about Threeing to adapt this innovation into the group dynamics proper to his or her domain. The early adapter could be a counselor, negotiator, therapist, trainer, teacher, social worker, artist, scientist, manager, entrepreneur, social scientist, or conflict mediator.

Chapters 4 and 5 will be of particular interest to early adapters. As they well understand, to be actualized in any context, Threeing must first be specified for that context. This work of specification sometimes requires programming. Programs are coherent operational sequences that achieve a stated purpose in a particular context. Chapter 4 details a job search program based on the Three Person Solution organized for the Employment and Training Institute (ETI). Chapter 5 explains how Threeing was used to organize a conference for educators on greening the curriculum.

Unlike many other situations in which I have applied Threeing, I chose to report on these two because both the worker training program and the educational conference were facilitated by people other than me. This suggests that the Relational Circuit and Threeing can work independent of the creator. Neither example is perfect. People close to me ran both programs, and funds were not available for control groups or outside evaluators. We must acknowledge these limitations. Hopefully, the opportunity will arise to do more objective testing of Threeing in these and similar programs. All that said, the success of the worker training program and the more difficult to measure success of the educational method do offer a tentative "proof of concept" regarding Threeing.

Threeing will particularly intrigue early adapters working with group dynamics in Internet situations, since Threeing is based on a circuit that provides a logic of relationships. This logic of relationships can guide the programming of sustainable protocols of interrelating in online communities. Given that this logic of relationships can also guide face-to-face-to-face nonverbal relationships, the combination of onsite/online uses of Threeing seems especially fecund. Based on my experience with Threeing to date, I believe early adapters can use Threeing to cultivate healthy, sustainable human relationships in a variety of contexts including family therapy, conflict resolution, collaborative research, collaborative art making, governance, management, intercultural relations, and environmental initiatives.

While early adapters are my primary audience, the secondary audience for this book is the general reader interested in relationships. Respecting the general reader, I assume no prior expertise. I provide illustrative graphics. I explain unfamiliar terms on a need to know basis. However, the general reader should know that certain sections of this book are not a "good read." Whenever I had to decide between explaining useful "technical" information to the early adapter and ease of reading for the general reader, I chose in favor of the early adapter.

Readers who wish to pursue the theoretical aspects of this work are encouraged to read the source material listed in the back of the book, especially the texts by Gregory Bateson, Charles Peirce, and Warren McCulloch. Included in that source material are references to other writings of mine that explain Threeing in more detail at a theoretical level, speculate about Threeing in relation to self, gender, art, and religion, and imagine various projects that use Threeing. Since inventing this new way to create collaborative relationships, I have focused my own efforts primarily on incorporating Threeing into a notational system for developing an information transmission system based on shared perception of environmental realities. (See my book *Video Mind, Earth Mind* and my Web site at www.earthscore.org.) Theory, speculation, imagination, and notation are, of course, no substitute for practice. This book focuses on making the practice of Threeing possible.

Different readers might want to work their way through this book in different ways. Actors, dancers, athletes, yoga practitioners, children, and others in the habit of doing body work might want to go right to Chapter 8, learn the nonverbal practice and let the verbal understanding grow out of the experience. Readers unpracticed in nonverbal interaction but impatient with explanation might want to go right to the lessons in verbal Threeing provided in Chapter 7. Readers who like verbal explanations before they act can read straight through the chapters as given.

Parts of this book have appeared elsewhere. Sections of the Introduction and Chapters 1 and 2 appear in a special issue of *The Journal of the American Semiotic Society*, dedicated to Gregory Bateson. Chapter 4 is adapted from an article titled "Peirce and Work" for scholar Roberta Kevelson's *Festschrift*. Chapter 5 appeared in the proceedings of the Greening of the Campus III Conference held at Ball State University in 1999 under the title "A Demonstration Program: Education and Sustainability." The appendix on the Relational Circuit is built from three published papers: "From Video Feedback to the Relational Circuit to Threeing" appeared in *Leonardo* in 2006, "The Relational Circuit Revisited" appeared in *SEED* in 2004, and "a Sign of itself" appeared in *On Semiotic Modeling*, a volume edited by Myrdene Anderson and Floyd Merrell in 1991.

PART ONE: THEORY OF THREEING

The most abstract ideas are the most practical.
Anonymous

CHAPTER 1

The Three Person Solution

Why three people? Why not two? Or five? To answer the question of why three people form the fundamental unit for resolving relational problems for two, three, four, five, or more people, I begin by examining the word "relationships."

The word "re**late**" comes from the fourth part of a Latin verb:

fero—I carry
ferre—to carry
tuli—I carried
latus—to be carried

The verb was used to mean "to bear" or "to carry a child." As indicated above, the word "difference" comes from the first and second part of the same verb. "Dif**fer**ence" and "re**late**" can be reconnected in an English sentence that helps us understand relationships.

We *differentiate* ourselves from our *relatives*
by referencing the experience of childbearing.

For example, my cousin was carried by a woman (my aunt) who was carried by a woman (my grandmother) who carried the woman (my mother) who carried me. The very word "re**late**" suggests that the question of how to relate is really a question of how best to organize the differences among us.

Traditional families organize differences in fixed roles. The father plays his role. The mother plays her role. The children play their roles. When you play your role, you play your part in the whole. The whole family depends on each person playing his or her part. Grandparents, uncles, aunts, and cousins also have roles,

and there are rules for maintaining these roles. For example, a student of mine from Korea once explained to me that although his uncle is younger than he is and a boyhood friend, he must nonetheless address his uncle in a formal family term that shows the respect required in that relationship. Such rules of address keep the overall organization of differences in the family system clear and balanced.

Outside the family system, you can "relate" one-to-one. Moreover, with just one other person you can develop a deep understanding of him or her, and that person can develop a deep understanding of you. Understanding each other, however, is not the same as understanding the differences between you. Differences are themselves relational. *We cannot really understand the differences within a two person relationship as differences, unless there is another relationship available for comparison.* This explains why love is blind. The two lovebirds see each other, but neither sees the relationship they are in *as a relationship*. Without a third person, the exhilarating play of differences between two lovers easily goes to extremes. Courtship can be very dramatic. In truth, courting lovers do not want to see the relationship; they want only to see each other. They are jealous of any third person precisely because the very presence of a third person invites scrutiny of their relationship and questions about how their isolated two person relationship fits with other relationships in their community.

Let me restate my premise. For two people to understand the differences between them, to understand the relationship *as a relationship*, there needs to be another relationship available for comparison. Relating to one person with no comparison available, one might say, "You're no fun." With a comparison available, one could say, "I have more fun with him than with you." Of course, such a comparison implies that you will soon make a choice and leave the person you are with and go have fun with the third person. Here we have the fundamental relational dilemma. On one hand, it takes three people to understand and balance relationships as relationships; on the other hand, each person within a three person relationship is constantly faced with a choice between the other two. *Relationships are routinely subsumed by acts of choice.* The choice of one person tends to break off the relationship with the other person. Yet choices that exclude a third person leave the two remaining people without a way to balance their relationship as a relationship.

Consider this simulation of the relational dilemma conducted at a research center in California (Bateson, 1976 conversations). The researchers seated three people at a round table with partitions placed so they could not see each other. In front of each person, on the table, there was a device. The device had a button for the left index finger and a button for the right index finger. Only one button worked at a time. Each button closed part of an electric circuit. One of the other two participants closed the remaining part of the circuit by touching one of his or

her own buttons. A light on the device went on when either one of the two possible circuits was closed. A timer recorded how much time each participant was in a closed circuit. For each participant, the objective was to be in a closed circuit with another participant for more time than either of the other two parties were in a closed circuit. To score, they had to make a choice between the other two. Only one two person combination could be scored at any one time. Relationships among the three were subordinated to choices that always excluded one. The choice of one person excluded another person.

This dilemma about choice and relationships generates a cluster of partial solutions to relational balance for two people committed to each other, among them risking periodic interaction with an outsider that may allow the two people within the partnership to renew their mutual choice of each other. In effect, the two are proving to each other that despite whatever ambiguity or second thoughts about their mutual commitment have arisen within the relationship, it is at least clear that each of them prefers the other to this third person.

Two is incomplete, but three appears impossible. For relationships to thrive they require a commitment, a clear choice. Yet choice itself is not about organizing differences, that is, relating as such. Relationships get subordinated to choice. Yet a relationship subordinated to the choice of one person can cut the relationship off from the play of differences with someone else that might balance and enrich the chosen relationship.

One reason for this relational dilemma is basic biology. We cannot look in two pairs of eyes at once. If you are facing Jack, you cannot face Jill at the same time. You must make a choice between Jack and Jill. *Threeing solves the relational dilemma by neutralizing the excluding effect of choice on relationships.* In Threeing, you can make choices that balance your relationship with two other people simultaneously. You are never forced to choose between Jack and Jill.

The way Threeing allows for non-excluding choices in a relationship with two other people is quite simple once one understands the concept, yet explaining it in words alone is hard. The basic two part structure of a sentence, the subject/predicate dyad, tends to reduce all three part relations to dyadic statements. You can understand the dyadic statements and fool yourself into thinking you understand the triadic relations. To avoid this confusion, I ground my explanation of the Three Person Solution in a diagram and a device. The diagram, a two-dimensional rendering of the Relational Circuit, engages the nonverbal ability to think in icons or pictures that show relationships. The device, a tricolor talking stick, developed specifically for verbal Threeing, appeals to the ability to learn by doing. Admittedly, both these explanations will, perforce, be dry, like explaining the floor plan of a basketball court and the rules for playing. Threeing itself is like the game of basketball, in that the action occurs when you're playing.

The Relational Circuit

A circuit is a closed pathway that organizes differences. The standard example of a circuit is the heating system in a house. A difference in the room temperature (it gets hotter or cooler), makes a difference in the thermostat (it switches off or on), makes a difference in the fuel supplied to the furnace (it decreases or increases), which in turn makes a difference in the room temperature (it gets cooler or hotter). Just as this closed path of differences regulates the heat in a house, so what I am calling the Relational Circuit regulates the relationships in Threeing. Before presenting the complete path or circuit, let me present the three positions in the circuit that correspond to the three roles (Figure 1.1)

Figure 1.1 Three Lines for the Relational Circuit

Notice that the shortest line is at the bottom and shows the first position. The second and third positions have respectively longer lines. We complete the Relational Circuit by adding lines that connect the three positions in a complete pathway (Figure 1.2).

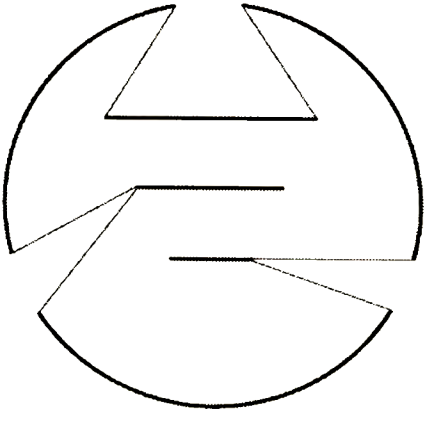

Figure 1.2 The Complete Relational Circuit

Figure 1.3 is another diagram of the same circuit. In this diagram, the roles corresponding to the positions are named. The first position, the shortest line, corresponds to the first role, the initiator. The second position, the middle sized line, corresponds to the second role, the reactor. The third position, the longest line, corresponds to the third role, the mediator. In brief, the reactor "contains" the initiator. The mediator "contains" both the reactor and the initiator. A fuller explanation of the roles and how they relate to each other is provided below. Here we simply name the roles in terms of the three key positions in the circuit and show the possibility of choice between roles provided by the circuit (Figure 1.3).

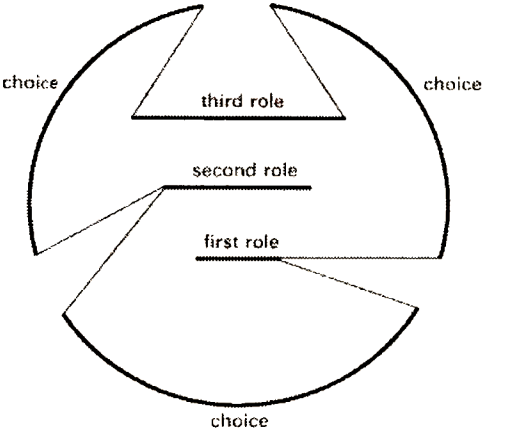

Figure 1.3 Three Roles in the Relational Circuit

Imagine this circuit outlined on the floor with an eight-foot diameter. Imagine yourself walking along the path of the circuit. In any position, you always have the option of moving to two other positions. You always have a choice. The complete flow pattern for making these choices in concert with two other people is presented in the instructional part of this book. The decision to move from one position to another is motivated by each person's sense of how to balance the three person interactions without falsifying oneself.

Looking at the circuit, it is evident that if you make a choice to change your position, you change your relationship to all the other positions in the circuit. In turn, others change their roles in relation to you when they change their position. Choosing a different position makes a difference in your relationship with the other two people. Yet all choices take place within a circuit that always includes all three people. No one is ever excluded. The whole pattern of relationships established by the circuit stays the same, but you change your role in relation to the other people when you change your position.

In some respects, the roles in Threeing are like the roles in the game paper-rock-scissors. This game offers an alternative to the normal bullying that can go on among children. In the normal pattern, the biggest child pushes the next biggest child, the next biggest shoves the littlest, and the littlest goes out and kicks a wall—he dare not push the biggest child. By contrast, in paper-rock-scissors we organize the relationships in a closed pathway, similar to how the Relational Circuit organizes Threeing.

In the game of paper-rock-scissors, each child simultaneously throws out one hand. The hand is either flat (paper), fisted (rock), or split fingered (scissors). The children then give each other playful slaps on the wrists according to the formula paper-covers-rock, rock-breaks-scissors, and scissors-cuts-paper. Figure 1.4 shows how this game maps onto the Relational Circuit.

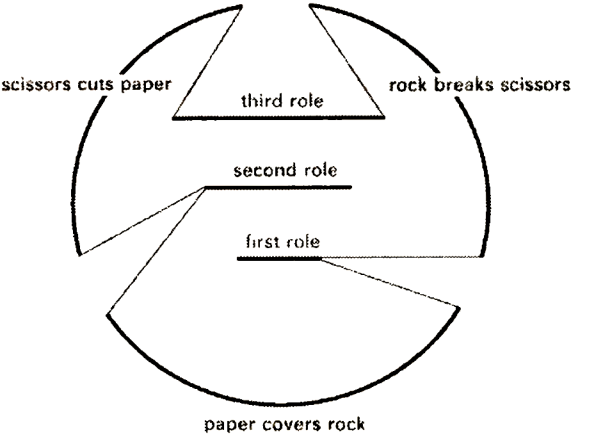

Figure 1.4 Paper-Rock-Scissors Mapped onto the Relational Circuit

In paper-rock-scissors, the three children are never forced to choose between their two other playmates. Each chooses one of three roles: paper, rock, or scissors. The choice of a role does not exclude anyone. Of course, unlike Threeing, paper-rock-scissors is a game you play to "win," that is, strike your fellow players more than you are struck. However, within paper-rock-scissors and Threeing, the same pattern of choice operates. Choices are not between people. Rather, we make choices between different positions in a circuit of relationships. The different positions indicate different roles to be played within the whole circuit of relationships. These are not choices that exclude one person for the sake of another. In Threeing, participants learn to play all three roles and make choices among the roles that balance a three person interaction.

The three roles of initiator, reactor, and mediator correspond to the three fundamental categories of being articulated by the American philosopher, Charles

Peirce. Peirce called his categories "firstness," "secondness," and "thirdness" (Peirce 1998: 160-78).

Firstness is the realm of spontaneity, freshness, quality, possibility, and freedom. Firstness is being "as is" without regard for any other. The role of initiator is the role of someone in firstness.

Secondness is a two-sided consciousness of effort and resistance, engendered by being up against something brute. The actual "thisness" of something, as it exists, here and now, without rhyme or reason, is secondness. To convey the pure actuality of secondness, Peirce often used the example of pushing against a swinging door and meeting silent, unseen resistance. Secondness always contains some firstness. The "ouch" uttered by a child struck by a stone is an instance of the firstness of secondness. The role of reactor is the role of someone in secondness.

Thirdness mediates between firstness and secondness, between possibility and brute actuality. Thirdness is the realm of patterns, of laws that govern the organization of events. The reality of patterns is the reality of thirdness. Patterns control the dynamic interplay of spontaneity and brute resistance. Refining these categories yields a firstness of thirdness. The intuitive appreciation of a pattern, say a time-lapse film study of a flower opening to the sun, is an example of the firstness of thirdness. There is also a secondness of thirdness. The hand of the sheriff on the shoulder of the perpetrator is the force of law, the secondness of thirdness. The role of mediator is the role of someone in thirdness.

Note that in naming these categories, Peirce hypostatizes the terms first, second, and third. To hypostatize is to make some characteristic of something stand on its own. For example, we hypostatize when we see the *happy* face of a baby and then talk of happiness. The phrase "the pursuit of happiness" puts "happiness" on a pedestal. We turn an adjective into a noun; we make a quality into a something, in and of itself. Peirce makes the term "first," which conveys coming before anything else, stand on its own and mean "being such as it is without regard for any other," that is, firstness. The term "second" which originally meant "other," means "that which one is up against," that is, secondness. The term "third" in Peirce's thinking does not mean the number ranked after the second in a sequence, but infers laws about relationships. Peirce was a trained chemist, and when he talked about a molecule that could form a compound with three other molecules, he described it as having "three hands out." Peirce argued that with multiples of three hands out, we can generate any level of complexity beyond three (Brunning 1997). Firstness, secondness, and thirdness mean much more than can be suggested by the designations initiator, reactor, and mediator. These role designations are simply labels pointing to the richness of playing roles in accord with Peirce's categories. The deepest immersion in these roles takes place in the ritualized nonverbal version of Threeing, illustrated in Chapter 8.

As mentioned, in contrast to typical family configurations, with Threeing, the roles for relating are not fixed. Three people rotate through three different roles. We define each role as broadly as each of Peirce's three categories of being. The first role, the initiator, invites you to express your sensibilities and feelings spontaneously, to "be such as you are regardless of any other." In the second role, the reactor, you maintain your own sensibilities, but you express yourself in response, even in reaction to the person in the first role. The third role, that of the mediator, is the most complex. You attend to both the spontaneity in the first role and the responsiveness in the second role and mediate between them. Once three people establish a fundamental circuit of relationships among themselves using these three roles, they can go on to establish more complex circuits of relationships with four, five, or more people.

A diagram of the Relational Circuit on the floor makes possible the nonverbal practice of Threeing as a yoga of relationships. Participants keep track of the roles they are playing by referencing the positions in the circuit. A verbal version of Threeing is also possible using the device called a "tricolor talking stick."

The Tricolor Talking Stick

A tricolor talking stick is a round, fifteen-inch piece of wood with a diameter between one and three inches. We paint the stick with three five-inch bands of solid color: yellow, red, and blue. The red band is in the middle of the stick.

In verbal Threeing, the person who holds the stick speaks while others listen. By holding a particular color on the stick, the speaker indicates that he is speaking in a particular role. By painting the stick with three colors, we can keep the three roles clear and keep the relationships from getting tangled up. Just as training wheels help one learn to ride a bicycle, so the tricolor talking stick helps three people to learn Threeing. Once people learn to change roles without tangling themselves up, the training wheels can come off, and it is not necessary to actually hold the stick while taking on a particular role.

To learn verbal Threeing, three people take turns in the different roles by passing the stick around and holding the color that shows their role. Holding the yellow band shows that one is playing the first role (initiator). Holding the red band shows that one is playing the second role (reactor). Holding the blue band shows that one is playing the third role (mediator). You can remember the connection between role and color by association. Yellow is associated with the rising sun in the morning (initiation), red with the reactiveness of "seeing red" (responding), and blue with the overarching sky above (mediating).

In using the talking stick, sometimes the emphasis is on the role the person is playing: initiator (yellow), reactor or respondent (red), and mediator (blue). For example, yellow throws out an idea, red reacts, and blue mediates. Let's say

that Maria, Stacey, and Lynn are trying to decide which movie to see. Lynn (holding yellow) throws out some suggestions. Maria (holding red) responds. Stacey (holding blue) mediates between the two. If all are not in agreement, they can change roles and try another round, and another, until they settle on a movie.

In discussing the movie afterwards, these three could share their opinions in a similar way by using the roles to recall different aspects of what they have seen. The first role (yellow) deals with the emotional qualities of the movie, the second role (red) deals with specific facts and details in the movie, and the third role (blue) deals with the overall plot of the movie and what it means in a larger context. By taking turns in each of these roles Maria, Stacey, and Lynn can discuss their different appreciations of the movie without anyone being pushed aside.

Note that the three roles of initiator, reactor, and mediator invite non-confrontational discussions. The tricolor talking stick can also be used to regulate confrontation. As the word "confront" suggests, confrontation means facing off with an opponent. Boxers standing toe-to-toe in the ring are confronting each other. Their actions mirror each other. One hits; the other hits back. There is a symmetry of interaction.

The roles of initiator, reactor, and mediator do not mirror one another. They fit together, but they are not similar. In this, they are like child, mother, and grandmother. The child is nurtured, the mother nurtures, and the grandmother mediates the nurturing. The activities interrelate, but they do not mirror each another. The interaction is without symmetry. The roles are asymmetric.

While the main roles in Threeing are non-competitive and asymmetric, within Threeing there is the opportunity for competition and symmetric interaction. Using the talking stick, participants can combine the three non-confrontational asymmetric roles, as indicated by the yellow, red, and blue bands, with symmetric or confrontational roles. The difference between confrontation and non-confrontation is indicated by the way that a person holds the stick. To show confrontation, the stick is held horizontally with the ends pointing at the two people in confrontation. In the non-confrontational roles of yellow, red, and blue, the stick is held vertically.

In verbal Threeing, the nature of the non-confrontational roles suggest using certain types of phrases to make sure the inquiry is not mistaken for confrontation.

Yellow

How do you yourself feel about the suggestion you've made?
Did you have any expectations about how the rest of us would feel?

Red

What are the facts behind your suggestion?
What experience have we had as a group or as individuals that would support your suggestion?

Blue

If I understand you correctly, you are saying that if we do _____, then things will work out. Am I right?

Can you show me how you got from the "if" to the "then"? I did not follow you.

Just as playing the asymmetric or complementary roles of yellow, red, and blue suggest a certain style of speaking, so confrontation suggests a certain style of speaking. Certain introductory statements can go a long way toward making the confrontation formal and clear enough to be productive.

I don't agree with you. Here is why...

While I can see your argument, I disagree because...

Here is how I understand the context in which I am stating my argument...

Here is how I would define these terms...

I am assuming...

Here's what I think...Here's how I came to think this way...

I came to this conclusion because...

Here are the facts I 'm basing my argument on...

Figure 1.5 shows how the protocols for confrontation and non-confrontation in the tricolor talking stick map onto the Relational Circuit.

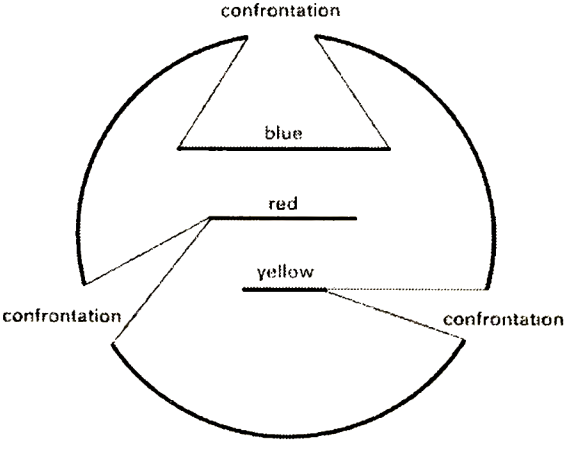

Figure 1.5 Tricolor Talking Stick Confrontation

The details of how to use the tricolor talking stick to support the flow of conversation are best left to Chapter 6 where complete instructions for the verbal practice of Threeing are given. Here it is enough to suggest how the three roles work in a verbal context. Once participants get familiar with the roles indicated by the tricolor talking stick and they learn how to confront each other without the

confrontation escalating into a vicious cycle, they can talk to each other with real frankness.

The Relational Circuit and the tricolor talking stick constitute the core of the Three Person Solution. Strategies for using the Three Person Solution with four or more people appear in Chapter 6. The Three Person Solution neutralizes the excluding effect of choice on relationships. No one person is ever forced to choose between two others. No one is pushed toward excluding the third party. To further clarify this non-exclusion, let us complete this chapter by examining the "prisoner's dilemma" in terms of the Three Person Solution.

The Prisoner's Dilemma

Two lawbreakers, let's call them Thelma and Louise in honor of the movie, get caught. The police detective puts them in separate cells. No communication is possible. The detective doesn't have enough evidence to charge them with a major crime, which carries a three-year sentence, so he charges each of them with a minor crime which carries a one-year sentence. Simultaneously, he offers each prisoner the same deal. If you testify against your partner about the major crime, you go free and your partner does three years. If your partner testifies against you and you don't testify, you get three years and your partner goes free. The catch— if both you and your partner testify against each other, you both get two years.

Each prisoner is faced with a dilemma.

If I don't testify and my partner sits tight, I will only get one year. Nevertheless, if my partner does testify, I would get three years, a sucker's deal. The outcome of this choice depends on what my partner does.

If I do testify, perhaps I go free. At worse, it takes at least one year off my sentence. The outcome of this choice does not depend on what my partner does.

The argument for cooperating with your partner in crime is that both prisoners share identical situations. Both can see that. Both will expect the other to see the situation in the same way and refuse the deal. The argument for defection from your partner in crime is that the choices offered are simultaneous. You can do nothing about your partner's choice, so defect. If you defect and your partner doesn't, you're in luck. Worse case is you both defect and both get two years. Cooperation may just get you the suckers' reward of three years in jail.

Many game theorists have puzzled over the prisoner's dilemma and used it to illuminate everything from buying a used car to conducting nuclear war. Nearly all agree that no matter what choice you make, you wind up wondering if you made the right choice. William Poundstone concludes his book *The Prisoner's Dilemma* by saying that, "The only satisfactory solution to the prisoner's dilemma is to avoid prisoner dilemmas." Threeing is a way to avoid the

prisoner's dilemma. To explain how Threeing works to prevent the prisoner's dilemma, I approach the dilemma not by calculating each prisoner's advantage or disadvantage, but by focusing on the prisoner's relationships. This focus lets us see that the choices presented in the relational dilemma predetermine the choices presented in the prisoner's dilemma.

In the movie version, the bond between Thelma and Louise is so strong they share death rather than risk any change in their relationship. When we interpret the film as a prisoner's dilemma, described above, the detective attacks their relationship. To set up his attack, he isolates them from each other. He cuts off their continuous give and take. The fear of betrayal is allowed to play in their minds. Then he establishes his own relationship to each of them. The detective offers himself as an alternative to their lawless relationships. He is the law. The law has power over relationships. The detective offers each prisoner a new relationship with the law. He presents himself as the rival to their lawless relationship and an alternative to their relationship with their partner in crime.

After establishing himself as the law, the detective attacks their relationship by offering each of them the same choice. He designs the choice to break their bond. As we have seen above, the reason choice can be so effective is that choice overrides relationships.

Each choice the detective offers reinforces one relationship at the expense of the other two. The relationship reinforced is either the relationship between the detective and Thelma or the detective and Louise, whoever betrays the other. If neither betrays the other, then the relationship that they have reinforced is the relationship between Thelma and Louise. In any case, once the detective puts forth the choice, only one of the three relationships will be reinforced. Here is a relational chart of the prisoner's dilemma. There are four choices and three relationships.

Choice	Relationship between Thelma and Louise	Relationship between Thelma and detective	Relationship between Louise and detective
Thelma doesn't testify Louise doesn't testify	Strengthened	Weakened	Weakened
Thelma betrays Louise Louise doesn't testify	Weakened	Strengthened	Weakened
Thelma doesn't testify Louise betrays Thelma	Weakened	Weakened	Strengthened
Thelma betrays Louise Louise betrays Thelma	Weakened	Weakened	Weakened

The detective is the law. Law is about regulating relationships. Outside the law, relationships must regulate themselves. Self-regulation of relationships is what honor among thieves is about. The detective knows that even among those who abide the law, acts of choice routinely subsume relationships. Outside the law, relationships are even more vulnerable to choice. The outlaw has no court to address for redress of relational grievances. In the movie version, Thelma and Louise understand this. By sharing death, they cut themselves off from any rival relationships, however legitimate.

By avoiding the relational dilemma, Threeing makes it possible to prevent situations from degenerating into the prisoner's dilemma. As stated, Threeing excludes no one. All relationships—among all three participants—thrive. The practice of Threeing also addresses other relational difficulties. In Chapter 2, we look at how the Three Person Solution precludes seven prominent relational problems.

CHAPTER 2

Preventing Seven Relational Problems

Human efforts to order differences without confusion have their optimal realization in ideal objects familiar to us from geometry (Derrida 1978). A circle is a circle. A square is a square. Ideal objects are unequivocal; you cannot have a square circle. Ideal geometric figures do not carry the ambiguity of language. The term "environment" provides an example of how the equivocacy of language contrasts with the univocacy of ideal geometric objects. The word "environment" has become bound to the political ambiguities of its use pattern. When first deployed, the term referred to the all-inclusive context of the planet Earth. Now many people see the environment as the special interest of just another special interest group called "environmentalists." The word "environment" metaphorically reached for a holistic understanding but only grasped a piece of the whole. In most people's minds, it is now an equivocal term.

At the root of the word "environment" is the French word *viron*, meaning "circle." As stated above, the circle is an ideal object. The reach and the grasp of the ideal circle are identical. Its true sense is in this unity. An ideal circle is what it is once and for all. It is not subject to the shifting contingencies of equivocal meanings. Specifics do not bind it. The meaning of a circle is univocal. Even children can recognize this. To invite a group of children to reactivate the original meaning of "environment" would involve helping them shift through historical sediments of meaning. By contrast, a circle requires no such archaeological dig. A group of children can all join hands and reactivate the self-evident meaning of a circle for themselves. Witness the game "ring around the rosy." Guided by the ideal of a circle in their minds, children can use the circle as a "figure of regulation" for their intersubjectivity. Language does not dominate. They engage their intersubjectivity by referencing a completely idealized and objective form. They can join hands and circle round, allowing their emotions to flow with the

circling. The objectivity of the ideal figure shows the pattern of interdependence among the hand-holding children, allowing them to interact without confusion. Only with such ideal objects is reactivating an understanding back to its most original self-evident status possible for humans. Because the Relational Circuit is an unambiguous ideal object with self-evident positions (see Appendix I), at any time, participants in the practice of Threeing can reactivate a clear, unambiguous understanding of the circuit of their relationships (Derrida 1978).

As we saw in the Chapter 1, Threeing involves three people using the Relational Circuit to take turns playing three different roles. By each person maintaining one of these three roles vis-à-vis the other two participants, three people can avoid choices that exclude, that is, they can resolve the relational dilemma. Maintaining these roles in keeping with the unambiguous positions in the Relational Circuit also prevents a series of other relational problems. This chapter specifies five problems common to two person relationships and two problems common to three person relationships that the practice of Threeing prevents.

1) The Sliding Triad or "You Started This"

Two people often disagree about the interpretation of events that take place between them. Bateson observed that people often interpret interpersonal events using a set of three labels (Bateson 1991: 133-146). Psychologists name this set of labels the stimulus-response-reinforcement triad. While two people will explain the interactive events between them in terms of this triad, often each person maps the triad onto the identical sequence of events in a different way. That is to say, each person has a different way of connecting the map (the stimulus-response-reinforcement triad) with the territory (the actual sequence of events). Below is a scenario depicting this problem of one territory with two different maps.

In discussing a muddled encounter, Naomi says that the angry look on Alice's face stimulated her (Naomi) to respond to Alice's look by walking away. According to Naomi, Alice reinforced her (Naomi's) response of walking away from Alice's angry look by shouting at Naomi, so Naomi kept walking. Offering a different interpretation, Alice says that when Naomi walked away, it stimulated her (Alice) to respond by calling out. Naomi's continuing to walk away only reinforced Alice's perception of Naomi as angry. Alice fails to acknowledge her own angry look.

Who started it? Whose action initiated the muddle? For Naomi, the angry look on Alice's face stimulated her response of walking away. For Alice the walking away stimulated her response of calling out. Alice sees Naomi's walking away from Alice as a stimulus; Naomi sees it as a reaction. Alice sees Alice's calling out as a legitimate response; Naomi interprets the calling out as shouting that reinforces her initial interpretation of Alice as angry.

Naomi's Map	Stimulus	Response or Reaction	Reinforcement	
The Territory	**Alice looks angry**	**Naomi walks away**	**Alice calls out (shouts)**	**Naomi keeps walking**
Alice's Map		Stimulus	Response or Reaction	Reinforcement

As seen in the chart, the walking away, which Alice labels "stimulus," is labeled "reaction" by Naomi. The stimulus-response-reinforcement frame moves back and forth along the sequence of interaction as if it were the rope in a game of tug-of-war. The play of differences between people gets polarized into a battle about determining where to impose the triadic outline on the sequence of their interaction.

In Threeing, participants agree about how they will interpret the stimulus-response-reinforcement triad *before* engaging in an interactive sequence. This agreement keeps the triad from sliding along the sequence of interaction and creating confusion. Participants agree to take turns playing three well-defined roles. Each role corresponds to one term in the sliding triad: initiator=stimulus, reactor=response, and mediator=reinforcement. If someone is playing the role of initiator, then every member of the trio interprets everything done in that role as initiation, not response or mediation. If the person in the initiator role wants to respond or mediate, she simply changes her position, that is, she repositions herself in the responding or mediating role. These two roles, responding and mediating, are clearly indicated either by color in the tricolor talking stick or by position in the Relational Circuit. The Relational Circuit provides a primary unambiguous outline for initiation, response, and mediation that stops the triad from sliding. Participants can reference differences in role without confusion. Interactive sequences among three people can proceed without risk of getting polarized. No tug-of-war takes place over a sliding triad.

2) Vicious Cycle or "This Just Gets Worse and Worse"

A vicious cycle is an interaction between two people that feeds on itself and generates a split in the relationship (Bateson 1972:323-329). Two kinds of vicious cycles correspond to the symmetric and asymmetric interaction discussed in Chapter 1. As noted, in symmetric or competitive vicious cycles, each person's behavior mirrors the other person. For example, two boxers stand toe-to-toe and punch each other until one of them is knocked down. Other examples would be an arms race or two people simply trying to shout each other down.

The other kind of vicious cycle is asymmetric or non-competitive. Two people do dissimilar things that fit together, like a mother nursing a child. This sort of relationship can also become monstrous and spiral into a split. For example, a mentor helps a student with his homework. The student asks for more help. The mentor helps again. The student asks for more. The pattern continues until the frustrated mentor does the student's homework and then quits.

In a vicious cycle, things just get worse and worse. One action feeds the other action, and the other action feeds more of the same. People react to each other's reactions. With no change introduced that can correct the pattern of interaction, the interaction escalates. When people are caught in such a pattern, it seems there is no way out.

Threeing prevents such escalating tensions by providing the opportunity to move back and forth between complementary interaction and symmetric interaction. The complementary roles of initiator, respondent, and mediator within the circuit are offset by opportunities for symmetric interaction on the outer arcs of the circuit. When a person feels tension accumulating in either symmetry or complementarity, the person simply changes position from inner to outer, or vice versa, and with that change of position changes the nature of the relationship from one pattern to another. Participants move back and forth between asymmetric and symmetric interaction and prevent either pattern of interaction from escalating into a vicious cycle that splits people apart.

3) Crossed Signals or "Who Needs Your Help?"

With two people, differentiating between asymmetric and symmetric can itself become a problem. If I think I am helping you and you think I am competing with you, pain and confusion will result.

Ed and Ray are brothers. Ed is older. When they were young, both boys had ambitions to be writers. They often competed with each other writing poems and stories. Now, they are both in their thirties. Ed hires his brother Ray to work as a reporter on small newspaper Ed started. Ed is the publisher and focuses on the newspaper as a business to support his family. In Ed's understanding of things, Ray is having a tough time and needs a job. He hires his brother, feeling good about helping him. Ray, on the other hand, feels that Ed is secretly trying to bring Ray down. The way Ray sees it, Ed gave up his ambitions to be a creative writer to run the business, and he doesn't want to see Ray succeed at being a novelist. By giving him "hack work" as a reporter, he will undercut Ray's imagination and cripple him as a writer, just as Ed is crippled. Ed thinks he is helping Ray. Ray thinks Ed is competing with him. Their signals are crossed, resulting in pain and confusion.

In the practice of Threeing, the roles of initiator, reactor, and mediator are complementary roles. They are dissimilar and non-competitive. They fit together asymmetrically, like mentoring and being mentored, not like symmetrically fighting toe-to-toe. Each role is clearly indicated by one of the three colors on the tricolor talking stick or by the different positions in the circuit. Taking the yellow, red, or blue part of the stick in hand and holding the stick vertically shows clearly that you are in a non-competitive asymmetric relationship with two other people. Holding the stick horizontally between you and another indicates clearly that you are in a symmetric competitive relation with that person. The choreography in the circuit and the protocols of the tricolor talking stick make intentions transparent and prevents the pain that results from the confusion between helping and competing.

4) Double Bind or "I'm Getting Mixed Messages Here"

A double bind is a situation in which someone is given contradictory commands or mixed messages (Bateson 1972: 194-278). Consider this scenario. Mary says to her child, Karl, "You are so tired, dear, why not go to bed?" Her nonverbal message, however, contradicts what she says. The nonverbal message is something like, "I'm exhausted and can't stand having you around for another second! Get out of my sight!" Karl is not tired. However, based on the habit of relating established with his mother, he sulks away to bed.

The child is bound up by commands that contradict each other. The child does not feel tired but is told he is tired. His own feelings get tangled up with his mother's feelings. The child is given mixed messages with no opportunity to untangle them. His mother seems simultaneously to love him and want to get rid of him. The child cannot honor his own feelings about not being tired nor does he have the power to reinterpret the situation and state the contradiction he experiences from the mixed messages given by the mother. The child is caught in a double bind.

Double binds often occur among adults. For example,

Tell me you love me.

I love you.

How come you only say that when I ask?

When we look at this scenario in terms of stimulus-response-reinforcement, or the sliding triad, we see the following:

Stimulus: *Tell me you love me.*

Response: *I love you.*

Reinforcement: *How come you only say that when I ask?*

In terms of our three roles of initiator, reactor, and mediator, a double bind locks a person into the second position, the role of a reactor, as we saw with the

son described above. He cannot simply acknowledge and affirm his own feelings, as he would do in the first position. Nor is he allowed to mediate by providing his own interpretation of the pattern and context of their relationship, as he would do in the third position.

Threeing prevents double binds by providing an opportunity both to honor one's own feelings in the first position and to interpret the relationship in the third position. Participants take turns in all three roles. The role of initiator is a role that cultivates intuitions and gives a person explicit permission to feel whatever they feel. The role of respondent encourages authentic reaction as reactions. The role of interpreter seeks to connect the pattern of interaction with patterns in the larger context. Of course, with a combination of adults and children, as with the scenario with Mary and Karl, it would take adults acting on behalf of the children—the traditional role of godparents—to ensure that the process works. We cannot expect a child to balance a relationship with two adults, even given Threeing.

5) Master/Slave Scenario

If you attempt to shake hands with yourself in a mirror, the simulation will not work. The mirror will return a left hand to your extended right hand. The image the mirror holds is optically "sliced" from your hand and reversed; it is a severed reduplication of you. The mirror image is an image for the eye, a spectral image, separate from your felt sense of your own body or what some call your introceptive sense of self. It is by way of a spectral image in the mirror that we first understand as children that others can see us, that what they see is distinct from our sense of ourselves. This spectral image can become a basis for our social identity, our mask, and our persona. Our social identity becomes tied to our spectral image, which is often at odds with our felt sense of self. By means of these spectral images, others can tear us away from our introceptive self, confiscate our sense of self, and force us into alienating interaction. For example, if the family you are born into happens to need comic relief, despite your moods, you might develop into the family clown.

Watch two children playing together. Often the more dominant child is the one providing the social persona while the other is the onlooker admiring and reinforcing that persona. It is a version of Hegel's master/slave relationship with the master dependent on the slave to produce feedback acceptable to the persona (Kojeve 1969: 31-70). The slave, meanwhile, does not have the feedback and attention necessary to do spectacular things and feeds vicariously on the achievements of the master, all the while growing resentful at his failure to fulfill himself. Both master and slave conspire to maintain this arrangement. They see third parties as threats to their mutually reinforcing blindness. Each one's identity depends on the other.

In Threeing, as interpersonal trust builds up based on stable roles, participants can gradually drop the persona of the spectral self. Participants can learn to trust each other with their felt sense of self. You can be in the presence of two others while maintaining your introceptive self. You move away from the dyadic introceptive/spectral self, which is open to the master/slave trap. In Threeing, we find no fixed identities as in the master/slave arrangement. Mutual recognition among peers replaces the master/slave dialectic. Three people take turns in the different relational roles and provide a fullness of feedback for each other. Such a fullness of feedback is not possible with two people.

6) Decision Making and Threeing

Decision making should rest on as much coherent information as can be gathered. In Threeing, the three roles correspond to three different ways of knowing: intuitive (first role), fact-finding (second role), and reasoning (third role). Participants can take turns gathering knowledge according to these roles before they make a decision. These three roles correspond to the three main categories of knowing articulated by Charles Peirce. As indicated in the educational project described in Chapter 5, Peirce elaborated these categories into a very sophisticated system of knowing. In fact, Peirce's system is the most comprehensive approach to knowledge yet developed in American philosophy (Peirce: 1931-5).

The decision making procedure proper to Threeing both respects these three roles for gathering knowledge and prevents a two against one dynamic from developing. Specific decision making exercises are provided in the practice part of this book. Here is how the decision making works.

When three people work together on a project, they divide the project up into three parts, like a pie. Each part corresponds to one of the three roles. Each person takes, as his or her domain, that third of the pie that best corresponds to his or her skills. Skills can be assessed using the performance profile (see Appendix II). For example, in dividing up the work on a computer newsletter, the three pieces of the pie might be interacting with people (first skill set), hands-on production (second skill set), and following developments in the computer field (third skill set). Besides dividing up the pie, all three people agree upon a fourth person, whom everybody trusts, to help the triad with decision making.

Once they establish this set up, the decision making rule is: No person's decision in his or her own domain can be overridden by the two other members of the triad *unless* the pre-designated fourth party agrees with the other two. Then three, using the integrated practice of Threeing, can override one. However, if the fourth party does not agree with the two, then the decision made by the one in charge of the domain stands. In fact, this decision making process worked very well for me and three other editors of a bioregional magazine we published in

North Jersey (Ryan 1979-80). We divided the magazine itself into four sections, each with its own editor. Each editor kept two co-editors informed of decisions as they made them so there would be time to object and discuss the decisions before the magazine went to press. With this procedure in place, no one felt his or her decisions were being overruled in an arbitrary chain of command. Moreover, each editor came to see the three other editors as a safety net. One could entertain risky decisions knowing he or she had the checks and balances of a supporting trio to help preclude reckless decisions.

7) Fair Division or "Cutters/Pickers"

Notice that in order for the decision making to work, the three have to divide the tasks in a way that everyone feels is fair. Dividing tasks and goods in a fair way also requires procedures. This problem of fair division is the last of the seven problems we are identifying as preventable with Threeing. Consider this scenario.

Dorothy, Steve, and Hillary are dividing up their mother's estate. She died suddenly at sixty years of age. Their mother always thought she would live until eighty-five, so she never made a will. She owns an assortment of things including property, furniture, clothing, paintings, personal belongings, stocks, bonds, and cash. The children have been out of touch, and the death of their mother brings up many old tensions between them. What is the best way to divide the estate in these circumstances? Steve tries to put a dollar value to everything, with the idea that they will split it all three ways. No agreement comes of the strategy. Dorothy, the oldest, tries to assign portions, but that doesn't work either. They are at an impasse.

In itself, the practice of Threeing cannot solve fair division problems. What Threeing can do is set up a communication among three people so that they can address the problems of fair division in a balanced state. Given a balanced state, there is a set of fair division procedures for three people that can be used with the practice of Threeing (Brahms and Taylor 1996). Exercises for these envy-free procedures are provided in the section on practice. These procedures can apply to the fair division of tasks and the fair division of goods. An example of one such procedure that would resolve the impasse in our scenario is the following three person variation on "cutters/pickers."

Hillary divides the mother's estate into three piles that she thinks of as a fair division. Steve selects one pile and trims it so that the selected pile provides, in his mind at least, a two-way tie with one of the other two piles for the best pile. He sets the trimmings aside. Dorothy has first pick of the three piles. Because Dorothy has first pick, she will not complain. Steve has second pick. If the pile he selected to trim is available, he must pick that pile; otherwise, he can pick any

remaining pile. Among the remaining piles will be at least one of the two he considered a tie for the best. Because Steve trimmed the pile he selected, knowing he might have to take the pile he trimmed, he will not complain. Since Hillary divided the piles in the first place, any untrimmed pile that is left will appear fair to her and she will not complain. The siblings can repeat the procedure to divide the trimmings or give the trimmings away in their mother's name. Other three person procedures for dividing goods among three people are available (Brahms p. 115 ff).

To sum up, by adhering to the logic of relationships encoded in the practice of Threeing, people can avoid the seven problems identified above and gain flexibility in their relationships. The two chapters in the practice section report on programs that follow this logic of relationships.

CHAPTER 3

Threeing and the Ecology of Human Behaviors

As mentioned, I am addressing the contents of this book primarily to early adapters—people who can introduce an innovation in a specific context based on their knowledge of that context. By contrast, the innovator lacks such specific knowledge. What the innovator can offer, besides articulating the innovation itself, are generalizations about how he or she understands the innovation. Such generalizations invite the reader to think about Threeing itself in a larger context. Before moving on to report on specific programs based on the practice of Threeing, I will offer some generalizations about Threeing.

In thinking about Threeing in a larger context, I have found it fruitful to formulate my thoughts as statements about what Threeing is not. Distinguishing patterns of behavior that Threeing is not provides a clearer idea of what Threeing is and gives us behaviors to compare with Threeing. In this chapter, I will compare Threeing to eight other human behaviors. Such comparisons will make it easier to introduce Threeing into the ecology of human behaviors.

Before making these eight comparisons, let me offer an example of how this tactic of explanation by negation and comparison works. A bee is not a flower, but bee and flower coexist symbiotically. Understanding the distinctive differences between bees and flowers helps people understand the pattern that connects them. Understanding the distinctive differences between Threeing and other patterns of human behavior helps people understand how to connect the innovation of Threeing with the current ecology of human behaviors.

As mentioned in the introduction, Threeing is not a narrative. In Threeing, the participants do not interact dramatically following a story line to an ending. Rather, the three interact recursively, following a circuit that balances relationships.

A story is a way to map the relationships among people. Mystery stories tell us how the act of murder reveals a hidden set of relationships. Families have favorite stories that celebrate how they get along. Nations have stories that hold their people together. Traditional religions, like traditional societies, have master narratives that grant each person a place in the cosmos.

The narrative way of mapping relationships can become problematic. The child of divorced parents may hear contradictory stories about why his or her parents divorced. Two nations may have conflicting stories about the rights to a particular territory that result in war. The master narrative of a religion may become corrupted by a priesthood that exploits its story telling role to privilege itself. Cultural historian, Thomas Berry, argued that the practices of Yoga, T'ai Chi Chuan, and Zen meditation all arose out of dissatisfaction with the story telling of traditional cultures in Asia (Conversation in Riverdale, 1978). Similarly, Threeing grew out dissatisfaction with the story telling of modern mass media (Ryan 1992).

The practice of Threeing provides the option of a non-narrative way of relating. There is no story line. Relationships map onto a circuit that has no beginning and no ending. When the narrative way of mapping relationships becomes problematic, the practice of Threeing can provide the experience of a non-problematic way of relating. Out of this experience, ideas for adjusting the relationship can arise. With the practice of Threeing, participants can build up a budget of flexibility in their relationships that allows them to reinterpret their conflicting stories in ways that avoid violence and suffering. Unlike in narratives with roles for the good and the bad, in Threeing, participants take turns playing three irreducible roles corresponding to firstness, secondness, and thirdness. The practice of Threeing includes peacemaking or mediation as a normal part of the role of thirdness. In this practice participants do not divide the world into good and evil. It is not us-against-them.

To suggest how such a budget of flexibility could be developed, let me offer a brief scenario of how practitioners of Threeing might address the Israeli-Palestinian conflict. An Israeli invites two other Israelis to learn Threeing with him or her. These three Israelis then convince three Palestinians to learn Threeing on their own. These six people then work together. As mentioned, with six people there are twenty different possible combinations of three. Each person can be a member of ten of the twenty combinations. The group of six could cycle through these twenty combinations, using the nonverbal yoga of relationships, the talking stick, and the tenfold sign system discussed in the chapter on education. Temporarily freeing themselves of their respective narratives, they can search together for strategies to make peace.

Here is an alternate scenario. Let an Israeli ask a Palestinian to join him or her in a peace practice. Let the Palestinian accept and identify a third person—

acceptable to the Israeli—say a Korean, to join them. The Palestinian, Israeli, and Korean then would each ask another member of their own group to join them. The two Palestinians, two Israelis, and two Koreans would then use the process of Threeing to come up with peace strategies. The process would preclude the Korean from being forced into choosing between the Palestinian and the Israeli. It would also preclude either the Israeli or the Palestinian from excluding the other. Within the Relational Circuit, they could suspend the burden of conflicting narrative and generate fresh suggestions.

When working with conflict between two parties using Threeing, usually, configuring a group of six is best so that they can address the conflict between the two parties in a balanced way throughout the threefold combinations. A seventh person, acting as a facilitator, is desirable. Obviously, large conflicts invite multiple groups of six working together.

Threeing is not a theological mystery. Threeing is a transparent practice that anyone can learn and perform.

In western culture, the classic mystery of three-in-one is found in the theological doctrine of the Blessed Trinity. This mystery is not clear to ordinary people or even to theologians. The mystery is revealed in scripture. There must be an authority to interpret the mystery. The history of the disputes over the proper interpretation of the Trinity is long and contentious. In orthodox Catholicism, the mystery remains in the keeping of those in authority. The Trinity is a matter of faith. Validity is a function of belief.

Threeing is an on-the-ground practice for humans. The validity of Threeing is a function of practice, not belief. There is no set of propositions to be believed in accord with an orthodox interpretation. There is a self-evident practice to be performed. Without the repetition of that practice, there is no Threeing. The Relational Circuit that guides the practice is a self-evident "sign of itself" (see Appendix). It is not a mystery. Any practitioner can grasp the complete circuit in his or her mind just as he or she can make a fist in the hand. Any practitioner can grasp the choreography of the practice.

Threeing is a way to practice an approach to knowledge in the tradition of Charles Peirce that combines humility about what we know with a refusal to block the road of inquiry. Any practitioner is part of a community of fallible interpreters seeking a larger understanding, not a community that assuages doubt by putting its trust in an infallible dogmatic authority (Peirce 1992: 109-23). While experience with Threeing does build up a certain authority based on experience, the authority remains with the voluntary practitioners. They have the authority to agree with each other on how they will interpret the practice and how they will use the practice. They need no authority to interpret the practice. They need no

director outside this practice to interpret the roles. Given the unambiguous Relational Circuit, one can learn this practice easily. Given the Relational Circuit, one can teach this practice without submitting to a language-based orthodoxy.

One point of useful contrast between the doctrine of the Trinity and the practice of Threeing is the way the roles work. The members of the Trinity have fixed identities and fixed roles: the Father creates, the Son redeems, and the Holy Spirit maintains. In Threeing, you learn to relate to others without relying on a fixed identity; you do not have one set role based on identity. Names do not determine roles. You take turns playing three different roles. The roles are ways of relating to each other. Of course, you bring your identity to each role; your physicality, your gender, your genetics, your proper name, and so forth, but your identity does not determine the role. Your position in the Relational Circuit determines your role. A difference in position makes a difference in your relationship to the other participants.

Learning to relate to others without relying on a fixed identity is not simple. The difficulty stems from the fact that as members of a family we learn to relate to others in such a way that we fuse our identity and our role. Moreover, that fusion is fixed. One is father, mother, oldest female child, second oldest male, and so forth, always. Perhaps one reason the Blessed Trinity holds such fascination for humans is that it offers a model of relating based on fixed identity that is very close to how families relate based on fixed identities.

What practitioners of Threeing often find is that they are most comfortable in one of the three roles because that role is the best match for their role in the family. I once invited an actress to participate in the production of a videotape of Threeing with the agreement that she would choose the two other people from her network of fellow actors. It happened that this actress was the oldest sister of three sisters. Without knowing the birth order of her peers, she chose a woman who was a second oldest and a woman who was the youngest of three sisters. Rehearsals went on twice a week for three weeks. The youngest gravitated toward the first role (initiator), the second oldest toward the second role (reactor), and the oldest to the third role (mediator). Gradually, however, they learned to trust themselves, and each other, to play all three roles. For example, the oldest "sister" came to like being in the first role where she was not responsible for the two others. Hidden aspects of her personality emerged.

In playing roles, one's identity is not wiped away. As any actor will say, you make the role your own. By making the three basic roles one's own, one has more flexibility to interact with other people depending on the circumstances of the situation. Some situations call for initiation, others for strong reactions, and others for thoughtful mediation. Some situations call for different combinations of these three broad skills. Rather than be stuck in one habitual role, a person

can make all three roles her own and play them according to life's circumstances without abandoning her own identity.

Discussion of roles brings us back to the notion of a budget of flexibility in human relationships. Threeing gives us a way to build up our uncommitted potential for change, our budget of flexibility. Given an enriched budget of flexibility, the chances of dealing successfully with the difficulties we face increase. One can even hope that the sheer pleasure of going round and round with each other, without relational confusion, can free our best efforts.

Threeing is not a replacement for two person relationships. The difference between the three person relationships proper to Threeing and two person relationships is a difference in kind, not degree. Both kinds of relationships can thrive together.

Triplets are not twins. Twins are not triplets. Two is not three. Three is not two. In this book, I have labored to articulate what Threeing is and how it works. In doing so, I have often contrasted Threeing with two person relationships, sometimes casting two person relationships in an unfavorable light. The need to put forth the newness of Threeing justifies, at least in my mind, this strategy of articulation by contrast. Nevertheless, Threeing cannot replace two person relationships. In the ecology of human behaviors, however, these different kinds of behaviors can find symbiotic ways of thriving together. Threeing can make the world safer for two person relationships, and successful two person relationships can reinforce the value of Threeing. As indicated in the above discussion of conflict resolution and elsewhere in this book, the key to such symbiosis is the number six. Six people can factor in both kinds of relationships. Six people can recombine in twos and threes.

To show one way twos and threes can recombine in different relationships, let me describe a scenario for a performance event, designed to foster intercultural cooperation, called The Tricultural Tournament. In the first phase of the event, we would train performers from three different cultures in Threeing. These trained performers would then compete among themselves as couples in two person performances that express the relationship between male and female in their own culture. The three winning couples would then go on to the intercultural event. This event would be a made-for-television competition for the six finalists.

According to the rules of the competition, however, out of the field of six performers, only a team of three can win. So, no couple representing a culture can win, only an intercultural team can win. In International Olympics, viewers enjoy a one-to-one identification with their representative team. This Tricultural Tournament creates the possibility of something more. Because only an intercul-

tural team can win, the viewer has the opportunity to identify with an intercultural team vying to create cooperative behavior among three cultures.

Three judges familiar with performance and intercultural issues evaluate the performance of each team of three. They will judge teams on their level of collaborative achievement, that is, their ability to "compose" their interaction in three different competitive events. The specific criteria for judging the performances will include reciprocity among all three, range of behaviors displayed, uniqueness of behavior displayed, respect for the choices of each person, and overall artistic composition.

The winning couples will meet with their selected counterparts for the first time at the intercultural event. With six performers, twenty different triadic combinations are possible. Of these twenty, twelve are not eligible to compete because they do not include a representative from all three cultures. Of the remaining eight triads, two are ineligible because they are single gender triads, that is, all male or all female. Making single gender triads eligible would run the risk of confusing gender competition with intercultural cooperation. That leaves six triads eligible to compete in the tournament. These six teams are both tricultural and mixed gender. If we use M and F to represent Male and Female, and use A, B, and C to represent the three cultures, then the six competing teams can be designated as follows.

1. AF BF CM	2. AM BM CF
3. BM CM AF	4. BF CF AM
5. AF CF BM	6. AM CM BF

Each performer is a member of three different teams. All six teams will compete in every event in the order shown above. Before each event, one of the three winning couples will perform the program that won them the competition within their own culture. The three main events for the intercultural teams of three are as follows.

1) *Flying Blind* challenges the ability of a team of three to maintain the communication necessary to balance interaction. The challenge is a matter of disrupting normal communication patterns with blindfolds. In Flying Blind, members of the team will put on and take off blindfolds as they interact on an open floor. The rule is that at least one member of the team must be blindfolded at all times.

2) In *Free Form*, members of the triad will play together on an open floor. The intent of the play is to invent new behavioral patterns. In Free Form, a

facilitator may suddenly throw unannounced props such as a tangle of rope onto the floor or announce temporary rules such as "hold your hands behind your backs."

3) In *Threeing*, the members of the triad will interact according to the formal relational practice of Threeing.

Threeing is not a practice structured by the biological distinction between male and female. Threeing is a practice structured by relative positions in an unambiguous circuit. Threeing is a chaste practice.

In *The Symposium*, the comic poet Aristophanes treats his fellows to a fantasy of the human species with three sexes: male, female, and hermaphrodite. All three sexes are spherical beings. Each has two faces that look in opposite directions and they can walk upright forwards and backwards. When they wanted to run, they tumbled in a circle. Their strength and vigor make them so formidable they threaten the gods. Zeus cuts them in two. The severed males become homosexuals. The severed females become lesbians. The severed hermaphrodites become heterosexual couples. Weakened, each half longs for its other half (Plato 1951: 59 ff.).

Human sexual practices involve two person relationships. We are not a trisexual species. Humans are born with a genetic status of either XX or XY chromosomes. This status determines their sexual identity as either male or female. Gender roles are the attitudes and behaviors that a particular group consider appropriate for a male or a female based on their sexual identity. In most cultures, our two biological sexes give rise to two normative gender roles. We will discuss these two roles below. Given the disjunction between the duality of gender roles and the three roles proper to Threeing, how can there be any stable synthesis between gender roles and Threeing? One way to clarify this question is to look at how a third party functions in relation to normative gender roles.

When a third party is on the scene, that party becomes a rival for one of the two roles in the gender relationship. We share this pattern with other primates. An experimental study with hamadryas baboons in the fields of Ethiopia shows this pattern very clearly (Kummer 1995: 169 ff). There are no free females in a baboon troop. Female baboons can compete to attract males, but they do not choose their mates. The males possess the females and will fight to hold onto them if necessary. Much fighting is avoided, however, because seeing the male/female pair together generally inhibits the rival male. When the experimenters put such a triad together in the wild, the social behavior of the rival is inhibited while the social behavior of the pair is enhanced. In the presence of the rival, the pair bond matures rapidly. The rival outsider is extruded in the process. The function of the triad is to reinforce the dyad.

With humans, we often institutionalize the role of the male rival as the eunuch, the monk, or the starving artist who can't afford to run away with the wife of his patron. We give the role of the female rival to the mistress, the nun, or the prostitute. The rival, real or institutionalized, can temporarily make the sexual partnership more intense, but the rival cannot change a two person relationship into a three person relationship. You can put three people on a seesaw, but there are only two roles to be played. Just as with baboons, with gendered human relationships, the function of the triad is to reinforce the dyad. We extrude the rival. By contrast, in Threeing, the function of the triad is to reinforce the triad. There is no extruded rival.

Of course, in the practice of Threeing, one's gender does play a part. In practicing Threeing with males and females in upstate New York, the women were clearly more comfortable with their bodies than the men. In Threeing with males and females in Istanbul, the men were more comfortable with their bodies than the women. The main point is not to confuse the relationships in Threeing with gendered relationships. As far as I can tell, only by recognizing that gendered relationships and sexual practices are proper to dyads and chastity is proper to Threeing, can gender roles and Threeing roles be combined symbiotically (Ryan 2002).

Threeing is not an exchange. Threeing is a performance.

According to the anthropologist, Levi-Strauss, mate selection in traditional societies is linked to a system that turns the rival male into a trading partner. Men structure the organization of the kinship system by trading women. Exchange is the rule (Levi-Strauss 1969). A man takes a given woman away from a man in order to have a child. The man giving the female away, for example, a brother giving away his sister, rightly expects at some future time to also receive a woman in accord with whatever rules of kinship exchange exist in his culture. The dyadic nature of gender roles is respected. The incest taboo insures that the "exchanged goods" are completely for the husband. The giver does not partake of the gift. Traditional males take a virginal gift as a reliable sign that the relationship between the exchanging men will not revert to open rivalry over females.

Among its many functions, the traditional kinship system manages copulation among humans. Physical love between a man and a woman is dyadic. _____ loves _____. Two blanks to fill in. He loves her, or she loves him. But exchange is triadic. _____ gives _____ to _____. Three blanks to fill. The father gives the daughter to the other man. The kinship system requires these three roles be played. Note that these roles are fixed. Note again that for this triadic system to work, the two roles in the sexually active dyad must remain intact and exclusive.

The main difference between the triad in the kinship system and the triad in Threeing is that the kinship triad is transitive and the Threeing triad is intransitive. Recall that "transitive" and "intransitive" are terms articulated in grammar. Transitive simply means that the action moves from a subject to an object. "I push the door" is transitive. "I" is the subject, "push" is the verb expressing action, and "door" is the object. By contrast, an intransitive verb expresses action that does not require a direct object. For example, "I yawn" or "I run."

In the kinship system, I give my sister to her new husband. The action is transitive. Without the object, the sister to give, the kinship system makes no sense. The man gives the woman away. The woman is not to be returned. It is supposed to be an irrevocable gift. The woman, defined as a gift, has no choice. In Threeing, no "object" is given. No woman is without choice. The intransitive triadic performance of Threeing allows all three participants choice. Regardless of sexual identity, participants can participate with whomever they choose. The relationships established are voluntary and intransitive. The intransitive performance of the practice itself maintains the exercise of choice within the triadic relationship.

In the novel *Beloved*, Toni Morrison provides an example of an intransitive ceremony that is very much like Threeing. The grandmother preacher, Baby Suggs, orchestrates the ceremony in a clearing in the woods. Morrison describes how they share the three roles of laughing, dancing, and crying among the men, women, and children spontaneously. The relationship among the men, women, and children is intransitive. The performance of the ceremony strengthens their relationships. Likewise, in Threeing, participants rotate among the three roles in accord with the choreography shown by the Relational Circuit. Nothing is exchanged. Performance is all.

Threeing is not a way to impose uniformity on a group of individuals. On the contrary, the practice of Threeing cultivates the singularity of each participant through a play of differences.

A colleague of mine once visited the elders of an African tribe. He showed them a videotape of the Rockets, dancing in a chorus line at Radio City Music Hall. They laughed and laughed. They would not stop. Befuddled, my colleague insisted on an explanation. One elder said, "If you can get your women to do that, no wonder you can rule the world."

Whether it's the imposition of uniform movements on a group of young women, soldiers marching in rows, or students lined up in a classroom, our North American sensibility often forgets how strange the repetition of the same is. The anthropologist, Margaret Mead, told the story of bringing two copies of the same

book with her to New Guinea. The identical books completely amazed her hosts. They had seen books before, but never two exact copies of the same book. Threeing breaks this pattern of uniformity. Rather than support a repetition of the same, Threeing supports a repetition of differences.

In Threeing, participants have equal access to every position, but no two positions are equal in the sense of being the same. Each of the six positions is different. Since no two positions on the circuit are identical, no two people are ever doing the same thing at the same time. No two participants share the same "identity." Performers maintain their own identity, and that identity comes into play in how they perform their roles, but in the performance there is never a reduplication of roles. Differences in position make for differences in roles. These roles are, in a sense, free of identity. Being free of identity, participants can never be "equated" one with another as in A=B. A never "equals" B in this sense. There is no one-to-one correspondence between participants, no imposed identity that they must share. By contrast, in the chorus line, every dancer shares the same movements simultaneously. The objective is to move in identical ways. Threeing involves the play of differences among "uniques," not sharing of the same among equals. Unique means without like or equal.

Perhaps we can clarify this notion of three uniques operating with equal access to different roles with an example from basketball. When the Chicago Bulls hired basketball guru Phil Jackson as their head coach, Jackson promptly hired the seasoned Tex Winter as his offensive coach. Why? While the Bulls had signed the young Michael Jordan to play the outside shooting position, they did not have a tall dominant man for the inside center position. In the history of basketball, all winning teams keyed off a dominant center, like the Los Angeles Lakers keyed off the graceful Kareem Abdul Jabar. The tall center "posts up inside," that is, he stands firm with his back as close to the basket as possible. The team can then run a variety of successful plays through him, beginning with passing the ball into the center at his post. Each player's role is defined in reference to the center. Tex Winter saw another way to win.

Over many years of coaching, Tex had worked out a formal approach to winning basketball games by posting three players off to one side of the basket in a triangle, facing each other. They needed no dominant big man. Winter taught his three-post offense to Jackson's Chicago Bulls. This form of offense enabled talented triads, such as Jordan, Pippen, and Kukoc, to play together, each at the top of his game. They set themselves in the triple post and pass, pass, pass until the defense exposed a weakness. Each of them had equal access to scoring opportunities; each took advantage of those opportunities according to his unique talents. Jordan to Pippen to Kukoc to Pippen to Kukoc to Jordan—weakness—Jordan to Pippen. Score! The three post offense worked. The Bulls won six National Championships. Just as the three post offense enabled the Bulls to maximize unique

talents and win, so Threeing is a formal approach to relationships that enables participants to sustain each other at their best, in their uniqueness.

In the practice of Threeing, the self is never identical to another self and the self is never subordinated to another self. The self is one among three with equal opportunity at every position. By moving from position to position in the flow pattern proper to Threeing, the self maintains different ways of being without forfeiting uniqueness. The uniqueness of the self thrives. Uniqueness is always already different. By cultivating each person's uniqueness, the economy of differences among participants can only grow richer. A richer economy of differences makes for richer relationships.

Threeing is not hierarchic. Threeing is heterarchic.

In a hierarchy organization of human behavior, each level of organization is subordinated to the level above. We name and rank participants. For example, in the organization of the Catholic clergy, the priests rank below the bishops, the bishops rank below the Pope. The Pope tells his subordinate bishops what to do. The bishops tell the priests what to do. The priests do not tell the Pope what to do. In the military organization of human behavior, the same pattern occurs. The foot soldier is subordinate to the sergeant, the sergeant to the lieutenant and so on up the chain of command. The chain of command is fixed. The soldier never tells the lieutenant what to do. Similar hierarchic management structures occur in business.

The Relational Circuit which regulates Threeing is itself hierarchic. The position of firstness is subordinated to the position of secondness. Secondness is subordinated to the position of thirdness. Likewise, the roles proper to each position are hierarchical; the role of thirdness contains secondness and the role of secondness contains firstness. However, the practice of Threeing is not hierarchic. There is no fixed chain of command between the participants. Unchained from a fixed command structure, three people take turns relating to each other in three different roles. In sense, this role playing is a collaborative art performance in which participants make choices not unlike a painter. Consider the example of Paul Cezanne painting with what he fondly called his "little blues, his little browns, and his little whites." Cezanne may choose brown over white and blue over brown, but that does not mean he automatically chooses blue over white. Depending on the composition, he may choose white over blue. Cezanne does not rank his cherished colors in a hierarchy. In his art making, he presumes a circuitry of choices. Technically, we call this circuitry of choices a "heterarchy." The practice of Threeing thrives on such a circuitry of choices. Threeing is not hierarchic. Threeing is heterarchic.

In carrying out Threeing, it sometimes will make sense to combine the heterarchic practice of Threeing with an established hierarchy in a given context. For example, a manager may invite three subordinates to practice Threeing to give the manager advice about certain sorts of decisions. After some success, the manager could turn over these sorts of decisions to the practicing subordinates and play the role of the fourth party in the decision making process described in Chapter 2.

Note that a hierarchic behavioral organization excludes other chains of command. The Catholic Pope cannot tell Muslim Mullahs what to do. An officer in a given military unit does not directly command subordinates in another military unit. If he wants them to do something, he must negotiate with the officers in command of that unit. The person at the top of the hierarchy negotiates for all members of the unit. Fraternization with the "enemy" is strictly forbidden, lest it breaks down the chain of command.

By contrast, groups practicing heterarchic behavior can combine with other heterarchic groups without going through a chain of command. Through various recombinatory strategies, described in the instructional chapters, groups practicing Threeing can grow laterally and collaboratively. This makes Threeing particularly suitable for organizing emergent systems of behavior among people with common concerns.

Threeing is not a way to privilege one person over others. Threeing provides the same differences for all participants.

In Psalm 110, God says to David, "Sit at my right hand and I will make your enemies a footstool for your feet." The right hand of God is a privileged position. In the Relational Circuit there is no right or left, no up or down, no front or back (see Appendix I). There is no privileged position. The Relational Circuit and the practice of Threeing are open to all humans. Like a circle differentiates inside from outside for all, the circuit differentiates the same six positions for all. As mentioned above, regardless of race, creed, color, sex, age, or ethnicity, a difference in position makes a difference in the relationship. No identity is privileged. The same differences hold for all. Again, as mentioned above, the voluntary practice of Threeing is based on characteristics common to almost all humans. We have a front and back; we can move and make sounds. The simulation of flying and holding in Threeing are based on the Moreau reflex and the startle response, both common to humans.

Given that the Relational Circuit and the practice of Threeing are potentially universal for the human species, any claim of special rights to Threeing by any group of humans is false. No one is privileged, no one can be excluded. Of course different groups may develop different levels of expertise with Threeing and we

should recognize and respect this expertise. Nevertheless, any effort to preclude others from Threeing is not in keeping with the truth of Threeing.

PART TWO: PRACTICE OF THREEING

As waves are the practice of water, so relationships are the practice of humans.
Anonymous

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CHAPTER 4

A Demonstration Program for Training Workers

In the purely expressive world of art for art's sake, Threeing can stand alone as performance art. The formalities of the practice protect participants from sliding triads, vicious cycles, crossed signals, double binds, and master/slave complications. Freed of these problems, practitioners of the art can enjoy the play of differences involved in relating as such. By contrast, in the "everyday" world, we can link Threeing to specific purposes in useful and practical ways. In this chapter, we link Threeing to a job search program for workers displaced from the defense industry.

I did not conduct the program described in this chapter as social science research. No control groups or accredited outside evaluators participated. I make no claim that the results are scientifically valid. In principle, this program, or something similar, could be repeated as social science research that tests the validity of the Three Person Solution. The immediate purpose of the program described here, however, was not to further social science but to help displaced workers find jobs.

The purpose of this chapter is threefold: 1) to describe an actual program that demonstrates the viability of the Three Person Solution, 2) to clarify the process of designing a program using the Three Person Solution, and 3) to articulate the skills necessary for conducting such a program.

In the spring of 1994, the Employment and Training Institute (ETI) invited me to design a program for workers who lost their jobs due to downsizing by Pratt/Whitney and Hamilton Standard in East Hartford, Connecticut. At the time, ETI, founded and run by my brother, Ken Ryan, was an experienced retraining company with a five million dollar yearly budget that had similar retraining contracts with IBM and Pan Am. ETI was particularly concerned with workers

who have been unemployed for a year or more and were having great difficulty in their job search.

ETI's reputation, commitment to its mission, and quality of staff made it feasible for me to think that a program based on reciprocal feedback and recognition among participants using Threeing could work. I set about using the logic of relationships encoded in Threeing to design a program for training workers to help each other find work. I called the new program "Success Skills" and defined Success Skills as habits of right reason and ease about work to be done. The Success Skills program shapes and supports habits that enable people to collaborate with each other in finding new jobs. The final program is a forty-eight hour intensive in which fifteen people meet for six hours, four days a week, for two weeks.

In February and again in April of 1995, I ran Success Skills workshops for ETI clients in Connecticut. Subsequently, people I had trained ran two more workshops without me. Based on testimonials, focus group reports, job club activity, discussions with staff, and the job placement rate, participants in all four workshops benefited. In all, fifty out of sixty participants found jobs. There was no appreciable difference between the workshops I ran personally and the ones run by people I had trained. This similarity of results offers some evidence that the effectiveness of the program did not hinge on my personal abilities as a teacher but on the logic of relationships and the operational sequence of the program itself. In fact, the program includes little formal teaching as such. Ninety percent of the time participants perform collaborative exercises based on Threeing.

To clarify the process of designing the program, I will address two major design specifications developed in dialogue with ETI in the fall of 1994. These specifications were: 1) the program must activate all the "soft skills" identified as necessary for the new world of work by the United States Department of Labor, and 2) the program must include training trainers who can run the program without the designer. A third major design specification, that the program interface with the Myers-Briggs system then in use at the Connecticut ETI center, has been discussed elsewhere, is not immediately relevant, and is not included in this account (Ryan 1998).

In applying Threeing, developing appropriate design specifications is critical. Based on the logic of relationships encoded in Threeing, we can program a collaborative sequence of activities for any purpose, in any context. While the logic is generic, the operational sequence, or the program, must be written according to specifications that suit the context. Otherwise, you are simply imposing an abstraction.

Skills Necessary for the New World of Work

The Secretary's Commission on Achieving Necessary Skills of the United States Department of Labor has identified the necessary skills for success in the twenty-first century workplace. Using an acronym based on the Commission, these skills are known as the "SCANS skills" (U.S. Department of Commerce 1992). Evidence of a consensus about the identity and value of the SCANS skills is apparent in the report on essential skills produced by the American Society for Training and Development (Carnevale 1990). As identified by the American Society for Training and Development, the SCANS skills, or Workforce 2000 skills, include reading, writing, and computation as well thirteen others that are informally known as the "soft skills." These soft skills are the focus of the Success Skills program. They include learning to learn, interpersonal relations, listening, oral communication, sharing leadership (including decision making), teamwork, creativity, problem solving, being an effective member of an organization, career development, self-esteem, negotiations, goal setting, and motivation.

To build a coherent training program, I analyzed each soft skill in terms of three generic life skills related to firstness, secondness, and thirdness (see below). The capacity of each participant to perform each of these generic skills is profiled using a questionnaire (see Appendix II). Based on these profiles, participants then organize themselves into teams of three or more and follow a carefully choreographed sequence of exercises over the forty-eight hour period. Each exercise is grounded in the generic skill sets and activates one or more of the Workforce 2000 skills. At the end of the workshop, a Success Skills Club is formed to sustain the ongoing task of shaping productive work habits.

The Generic Life Skills

The three generic life skill sets are based on the three fundamental categories identified by Charles Peirce. As described in Chapter 1, firstness, secondness, and thirdness structure the three roles for Threeing—initiator, respondent, and mediator. In Peirce's pragmatic understanding, the purpose of thinking is to establish effective habits. This understanding makes his categories well suited for a training program designed to shape good work habits. Working with the clientele of displaced workers, the Success Skills program is keyed to the task of finding work. We must acknowledge that in forty-eight hours participants can only begin to establish new habits. The Success Skills Club can help solidify these habits that they can only stabilize in a subsequent work setting.

By basing Success Skills on these three broad generic categories, I believe I developed a coherent program that can make a serious contribution to creating

a highly skilled and flexible workforce. Extant programs that effectively teach reading, writing, and computation can be integrated into Success Skills. The Skill Standards Initiative, developed by the National Alliance of Business, makes it possible to design and deliver high performance Success Skills programs for any industry. We can analyze industry-specific skills in terms of the three generic skills and develop an appropriate program that combines Workforce 2000 skill training with industry-specific needs in any area of the country.

For example, salespeople in the retail industry clearly need specific skills such as listening, asking open-ended questions, and acquiring product knowledge. The Success Skills program already includes training in listening and questioning in terms of quality of emotion, specific facts, and overall patterns. Emotion, fact, and pattern each reference one of the three generic skill sets. A salesperson with this training would satisfy the listening and questioning requirements. To address the requirement of acquiring product knowledge, a Success Skills module could be developed that taught people to examine a product in terms of quality, fact, and patterns. The common ground between customer and product, created by addressing both in terms of the generic skills, would make it easy for a salesperson to apply his product knowledge by matching a specific customer's need with a specific product.

By building specific training based on generic skills, the program builds a flexible workforce. Flexibility is uncommitted potential for change (Bateson 1972: 502 ff). The global marketplace is unpredictable. We need a flexible workforce that can respond quickly. Consider an acrobat on a high wire. To maintain his balance, he must be free to move quickly from one position to another. Rigidity in any part of his body will cause him to fall. A healthy economy needs a workforce that is not trapped in a rigidity of outmoded skills. By grounding the learning of very specific skills in a balance of the three generic skill sets, the capacity to learn new skills is built into the Success Skills program.

Learning to Learn

The Workforce 2000 skill of "learning to learn" is the most important of the Success Skills. Teaching someone something (learning) and teaching them how to learn to do something (learning to learn) is the proverbial difference between giving a man a fish and teaching him how to fish. Working with generic skills in a team setting is, in and of itself, a formal self-correcting approach to learning to learn. Participants are not just learning the SCANS skills one by one, as if they were buying skills off the shelves of a supermarket. Based on their own generic life skills, they are learning a way to learn any new skill. While learning to learn can be approached in many ways, the approach used here is based on the learn-

ing theory of Gregory Bateson (1972: 279-308). To understand Bateson's theory of levels of learning in the context of the workplace, the following breakdown is helpful.

Zero Learning. An IBM accountant loses his job because the Hudson River Plant closes. He gets a job in IBM accounting in Yonkers.

Learning I. An IBM accountant loses his job at IBM. He goes to Microsoft and learns that IBM's style of accounting was only one way of accounting. By reviewing the larger set of skills called "general accounting," he is able to move from the IBM way to the Microsoft way. Note that he does not stay in the set of skills called "accounting," but uses that set to move from one specific area of accounting to a more general domain. He then returns to the level of zero learning in the Microsoft context. If he were to stabilize at Learning I, it would mean hanging out a shingle and doing accounting for anybody who knocked on his door.

Learning II. A former IBM and Microsoft accountant, now freelance accountant, realizes that accounting is only one way to deal with money. He goes to business school and gets training as a fiscal manager, a set of skills that subsumes accounting and includes other things like forecasting. He then hires out as a fiscal manager.

Learning III. The business school itself has a new curriculum for enabling people to learn a new set of money skills that change fiscal management and accounting for the better. Once they learn these skills, they return to Learning II activity or Learning I activity and do it better than others.

The Success Skills program can be understood in Bateson's terms as an instance of Learning III. Though Bateson says Learning III is rare, his comment is focused on the individual learner. The Success Skills approach assumes a group. That is to say, it is a way a group of people can learn to learn. Once people learn this way of learning, they can then accelerate their learning of any other thing to be learned. What this means in practical terms is that the first part of the workshop is spent using the questionnaire and the talking stick protocols to habituate participants to this new way of learning. Just as in Robert's Rules of Order, any participant who feels another participant is not abiding by the protocols can say "point of order," and the facilitator will then clarify the protocols. Once participants establish the protocols, the training wheels can come off as they move through the rest of the Workforce 2000 skills in an accelerated way, because everybody knows the method.

The Success Skills Program can itself be considered Learning III in a formal way. It enables people to communicate better in every context, whether Learning I or II. To use a comparison, the classroom is a way people can learn together, a culturally invented form of Learning III. Once everybody knows the format, which includes literacy and the protocols of classroom behavior, any kind of

learning can be plugged in using printed material. So, Success Skills invites people to go from where they are to Learning III in a formal way, and then back to where they want to be with their new skill level.

Beyond learning to learn, the way in which the remaining Workforce 2000 skills are integrated with the three generic skills in the Success Skills learning process is developed by breaking down each workforce skill into three appropriate components that correspond to the three generic skill sets. One example of this appears above with listening. Listening is broken down into listening for tone (first skill set), listening for specifics (second skill set), and listening for pattern (third skill set). Following the Harvard Negotiation Process (see *Getting to Yes*), the workforce skill of negotiating breaks down into inventing options (first skill set), focusing on interests (second skill set), and referencing standards (third skill set). Career development breaks down into referencing oneself (first skill set), referencing the world (second skill set), and mediating between self and the world (third skill set).

Once the breakdown of specific skills, such as listening, into generic skill sets has happened, then it is possible to configure exercises in which participants take turns playing the three different roles. An example of a listening exercise among four people (A,B,C,D) goes as follows. All participants wear blindfolds to increase their aural awareness. A gives a brief account of his experience at a job interview. B listens for tone (first skill set), C listens for specific facts and details (second skill set), and D listens for overall patterns (third skill set). Once the account is finished, B, C, and D feed back to A what they have heard. Then A can ask questions to clarify the feedback, and a discussion geared toward improving A's interviewing skills takes place without the blindfolds. When the discussion is over, all rotate their roles, put on their blindfolds, and listen to B. The program for success skills consists of a sequence of such exercises that simultaneously train people in the generic life skills and the specific workplace skills (Ryan 1998). Multiple examples of such exercises appear in Part Three of this book. What follows is a description of the sequence of exercises used in Success Skills at ETI, referenced to a seven-day program.

Outline of the Success Skills Program

1) *Life Skills and Work Skills*. In the first two days, participants learn to work together using the talking stick protocols. The generic life skills and the talking stick protocols are used throughout the workshop and the job club. In these first two days, care is taken that everybody is clear on the generic skills and the protocols. The talking stick protocols are seen as training wheels for cooperation based on the generic skills. Training wheels come off only when the whole group is proficient in the protocols. One trio of workers that had gained proficiency spon-

taneously discovered a new way to use the talking stick. They laid out the tricolor stick on the table and each used a pencil to touch whatever color corresponded to the role he was playing. Watching these three talk together using the tricolored stick was like watching a jazz trio improvise.

In the course of using the talking stick, the following six Workforce 2000 skills are incorporated: learning to learn, interpersonal relationships, listening, oral communication, sharing leadership, decision making, and teamwork. Because the talking stick protocols are used throughout the workshop, participants are consistently exercising at least these seven Workforce 2000 skills. In addition, two Workforce 2000 skills, creativity and problem solving, are featured on the second day.

2) *Career Development.* The third day is devoted to applying the generic skills to the world of work. On the fourth day, the generic skills are linked to the Myers-Briggs profile of personal preferences and applied to the self. The fifth day is devoted to negotiating a relationship between self and the world of work. Taken together, days three, four, and five address the issue of career development, a Workforce 2000 skill, for the participant. As stated, in the course of these three days, the six Workforce 2000 skills built into the talking stick protocols are continually exercised. Creativity and problem solving are also drawn upon as needed. In addition, participants learn about being a member of an organization, negotiating, self-esteem, goal setting, and motivation. In the first five days of the workshop, all Workforce 2000 skills will have been practiced, many of them cumulatively.

3) *All-for-One.* Days six, seven, and eight are formatted as a series of all-for-one sessions. Each participant is on the hot seat for three continuous hours. The participants simulate a job interview and raise other issues that pertain to his or her work search. The purpose of these sessions are threefold: a) to provide comprehensive peer feedback for each participant based on trust levels established over five days of working with formal protocols; b) to provide the opportunity to reinforce the Workforce 2000 skills and the generic skills in a pressure situation; and c) after working with the three generic skills as a member of different teams, the all-for-one allows each individual to re-appropriate from the group a strengthened version of these generic skills for their own personal use in their own way.

4) *Success Skills Job Club.* The last session of the workshop on day eight is devoted to organizing the Success Skills Job Club. The Club meets for three hours each week over ten weeks following the workshop. Members of the workshop elect a leader as well as three advisors, each representing strength in each of the generic skills. One hour of the weekly meeting is devoted to general business of the Club under the direction of the leader and his advisors. Two hours of the meeting are given to mini all-for-one sessions with teams of four. Members of the four person team have a half hour to present whatever he or she needs to present

to the team of four for feedback in their job search. Participants select issues. Participants are free to create more extended all-for-one sessions depending on the needs of the job search by trading their own time with each other. For example, an important interview coming up may prompt a participant to invite three or four others to simulate an interview for an hour outside normal Success Skills meeting time. He or she would then oblige himself or herself for an equivalent amount of time. The Success Skills Club is designed to help stabilize the Workforce 2000 skills in the context of searching for work.

Educating Workforce 2000 Trainers

In art, there are two kinds of authenticity: 1) authenticity based on the trace of the artist's hand; a fake of a Picasso does not have a history that includes being touched by a brush held by the hand of Picasso; and 2) authenticity based on compliance with a covering score. Beethoven doesn't have to conduct his fifth symphony for it to be authentic. Leonard Bernstein could authentically conduct Beethoven's fifth symphony as long as he followed Beethoven's composition or covering score. For Bernstein or any other conductor, the composition is a set of instructions within which a rich experience of music is possible.

Success Skills has the second kind of authenticity. I composed the program, that is, I produced a covering score. Other trainers conduct the program. As a conductor, any trainer brings his or her own style and flare to the program. He or she can, and should, make the program his or her own. Making the program his or her own will enable the trainer to lead, or conduct, the participants through a very rich learning experience. The structure and sequence of the experience have been carefully laid out in the composition. The trainer must understand how the composition is put together. The more the trainer makes the composition his or her own, the richer the learning experience he or she conducts. As music instructors know, conductors must conduct as if they had composed the music.

Obviously, the trainer also needs to do what good facilitators do in terms of such basics as letting people get to know and trust them. The trainer must keep tuned into the sense of the group while preparing for what is to come. He or she must pace the exercises. He or she must be able to intervene and use his or her judgment to move the workshop along. Understanding the structure of the "composition" is important here. In some situations, he or she may legitimately need to depart from what is programmed. Understanding what he or she is departing from and what the trainer is returning to will enlarge the capacity to make such judgments. For example, participants may be struggling with a question of resume format that the trainer already knows the answer to, based on his or her expertise. It may make sense to interrupt the formal protocol and provide the needed information rather than allowing participants to waste time. After all, the

trainer is trying to help the clients find work, not mindlessly stick to a program. The composition itself has no magic capacity to understand the context or the particular participants. The trainer must take that responsibility. The trainer must understand what workshop participants need and how to help them get what they need out of the workshop.

As an alternative to thinking of the trainees as conductors, one might think of them as coaches. Consider each trainee as someone hired to guide, or coach, a group of people along an exercise path called "jogging for jobs." Each station along the path, that is, each Workforce 2000 exercise, provides a different way for the team to work together using their generic life skills. At each station, the trainer's job, as coach, is to make clear how to connect generic life skills with the Workforce 2000 skill or skills. If one was a physical trainer, one would need to know how the participants were going to use their arms, torso, and legs, so the Success Skills guide must know how the participants will use the three sets of skills. To do this effectively, the trainer will need to learn the two keys to the Success Skills program. The first key is an understanding of how each station, or exercise, employs the generic skills. Obviously, the trainer will also need to examine each exercise in detail. The second key is an understanding of the protocols of cooperation within the team. These protocols are organized around the talking stick presented above. The trainer should realize that more than ninety percent of the time participants will be doing exercises. Very little time is spent on "teaching" what to do. The program is highly interactive and requires the trainer to consistently give clear instructions as to how to do different exercises. The trainer must also monitor the exercises to see they are being done properly. The exercises are designed to optimize feedback among participants and accelerate their learning together.

As mentioned, the conductor or coach of the Success Skills program needs to understand how the three generic skill sets combine in each exercise. The simplest way to do this is to for the trainer to take the questionnaire (see Appendix II) and profile his or her own ratio for performing the generic skills. Next, the trainer should go through the exercises in the workshop and relate the generic skills to the Workforce 2000 skills. Another mental exercise that will help the trainer deepen his or her understanding is to apply these three generic skill sets to the process of learning skills that are not Workforce 2000 skills, such as bicycle riding, cooking, public speaking, child rearing, playing cards, and so forth. The trainer can pick a skill he or she would like to learn.

Because the skill sets are what is technically called "fuzzy" or overlapping, participants will sometimes play their roles in ways that overlap. This is OK. What is important is that each person takes responsibility for relating to other members of the triad in such a way as to feature one generic skill. Another way of saying this is that each must "cover" the part of the exercise that falls within his

or her assigned generic skill set. Fuzzy sets emphasize significance over precision. In using these three generic skill sets, we are likewise interested in what is significant for the participant.

Understanding that these sets are fuzzy goes hand in hand with understanding they are relational. If I stand with seventy percent of my weight on the left leg and thirty percent on the right leg, then the relation of my weight distribution is clear. More weight is on my left leg. Because my weight is on my left leg, I will step next with my right leg. This connection between weight distribution and stepping is generally true, even if there is only fifty-one percent of my weight on my left leg. So it is with these generic skill sets. They reference each other, not some abstract standard. Someone who profiles forty-five percent in the third skill set, forty percent in the second skill set, and fifteen percent in the third skill set will have a way of leading with the third skill set and seldom using the first skill set. This is fine. The program is not trying to change people's skill profile to some abstract ideal balance of thirty-three percent, thirty-three percent, and thirty-three percent. The effort is to help people strengthen their own way of going about life and connect that way to learning Workforce 2000 skills.

In the exercises, using the talking stick, participants will sometimes overlap each other in what they do. Overlapping is not a problem. It happens because the skill sets are fuzzy and relational. What is important is each person takes prime responsibility for whatever aspect of the exercise emphasizes the generic skill they are assigned by the talking stick. Somebody in thirdness may say something that includes the first set. That is all right as long as they are taking prime responsibility for paying attention to that dimension of the activity that requires the third set of skills. In relation to each other, the triads must maintain emphasis on the skill area they are assigned. On the musical analogy, you might think of the participants as learners taking turns using three different instruments to compose a shared understanding among themselves.

The trainer will lead people through a workshop world that has its own laws of relationships. It is a world unto itself, like a piece of music being played. The more the trainer understands the composition, the better will be his or her leadership. The composition is self-referencing. The generic skills reference the Workforce 2000 skills. The Workforce 2000 skills structure the exercises. The exercises reference the roles of the team members. The roles of the teammates reference the generic skills. This program constructs a consistent world where participants are free to provide each other with a fullness of feedback not possible in the work context from which they came. The trainer's job is to ensure consistency through careful instruction to the participants and monitoring of the process. There are no office politics here. There is no hidden agenda. This program is an opportunity for workers to strengthen their skills and help each other find jobs. Period.

CHAPTER 5

A Method for Teaching Sustainability

The purpose of this book is to present Threeing as one solution to the problem of creating collaborative, sustainable human relationships. The purpose of this chapter is twofold: 1) to provide another example of an actual use of Threeing; and 2) to connect Threeing to the larger problem of how to develop sustainable societies. This connection is made through the articulation of an educational method based on Threeing called "Earthscore."

A sustainable society takes care of itself without putting future generations at risk. At the Rio de Janeiro Earth Summit in 1992, convened by the United Nations, participants agreed; modern society, as we know it, is not sustainable. We deplete soil, exhaust fisheries, pollute air, foul waters, and warm the planet. To take care of ourselves, we put future generations at risk.

Most of us never learned this in school. Our teachers did not recognize the ecological situation. They organized our educational experience with curriculums that continued the traditions they had learned from their teachers. In doing so, they gave order to the relationships between generations. Yet for contemporary educators, the recognition that we are putting future generations in jeopardy brings with it the responsibility to reorder our relationship to the next generation. Teachers who do not know how to live sustainably must teach the next generation how to live sustainably. A generation who have put their children at risk must teach these same children how *not* to put their children at risk. Since the curriculum our teachers followed unwittingly concealed issues of sustainability, there was an innocence in their gifts of knowledge to us. We enjoy no such innocence. Those we educate are those that our very way of living is putting in danger. At some level, students know this, even if they have not thought about it explicitly.

What we teach and how we teach must be reorganized in terms of the issues of sustainability. If we fail to change our educational system for the next

generation, if we lock ourselves into the current curriculum of denial, we corrupt the teacher/student relationship. Developing a sustainable curriculum requires a method compatible with sustainability. Earthscore is such a method. Earthscore is a formal approach to bringing our species into compliance with the ways of the Earth. Earthscore offers a way for educators to reorder our relationship to the next generation. The formality of this approach "builds out" from the Relational Circuit and the practice of Threeing using both cybernetics (thinking in circuits) and semiotics (thinking in signs).

The Earthscore method has been put into practice in a range of contexts including teacher education programs sponsored by the New Lab for Teaching and Learning at The Dalton School and by the Cloud Institute in New York City.

My partner, Jean Gardner, who actively participated in developing Earthscore for educators, incorporates the method into her teaching at Parsons The New School for Design. Subsequently, she started a national initiative for sustainable design in response to climate change.

Part of the initiative involved sponsoring two national forums under the aegis of the Smithsonian Institution. The forums themselves were organized using Threeing in the context of the Earthscore method. The purpose of the forums was to evaluate the current teaching of design, identify problem areas, and develop strategies for strengthening the teaching of sustainable design. In what follows, I report on both the Earthscore method itself and Jean Gardner's adaptation of the method to conduct forums on sustainable design education.

The Earthscore Method has five components: three comprehensive categories of knowledge; the Relational Circuit, a formal way to organize these categories; a process of cooperative learning regulated by the Relational Circuit, that is, Threeing; a semiotic system to coordinate the interpretation of what you are learning; and creative envisioning or problem solving within the context of sustainability, based on the coordinated interpretation.

Component 1: Three Comprehensive Categories of Knowledge for Learning

Earthscore uses the comprehensive categories of knowledge developed by Charles Peirce. As we have seen, for Peirce, knowledge comes in three basic categories. In non-technical terms, these categories include quality, fact, and pattern. These categories also describe three generic skill sets, three basic ways that we learn, including feeling or sensing quality, identifying fact, and recognizing pattern. Peirce argued that by working with these categories, it is possible to determine, from our knowledge of some parts of what we are investigating, what other parts are missing, and to prevent arbitrary additions. Knowledge can grow organically, like the body of an animal. By thinking about sustainability using these catego-

ries, we can develop a unified and comprehensive understanding of the ecology and of ourselves in relation to the ecology.

The important thing about these categories of quality, fact, and pattern is that they are comprehensive. As we attempt to learn about sustainable society, we are confronted with "everything." We need to make selections. If those selections are arbitrary, the final understanding can leave out significant aspects of the situation. Significant omissions can make our interpretation faulty. Faulty interpretation can result in failure to achieve sustainability. Peirce's categories of quality, fact, and pattern constitute a theory of everything. Seeing these comprehensive categories as generic skill sets for learning, we can make selections that are responsible to everything.

Generic skill sets speak to the theme of lifelong learning, necessary in a sustainable society. Since we already have these skills, they can be activated in any age group in any circumstance. These generic skills also speak to the questions of interdisciplinary curriculum. Each discipline can be approached based on these three basic categories. In science, the first skill set deals with abduction, the second with induction, and the third with deduction. In mathematics, the first set has to do with intuitive sketches or diagrams of a problem, the second with measurement, and the third with calculation. In literature, the first skill set concerns poetry, the second with descriptive prose, and the third with reflective essays. In social studies, the first concerns prejudice, myth, and ideologies, the second with facts and conflict, and the third with law, governance, policy, and practices. In art and architecture, the first has to do with possibilities evoked, the second with factual concerns such as materials and utilitarian function, and the third with social, political, and economic contexts as well as ecological constraints.

Component 2: The Relational Circuit, a Formal Way to Organize the Three Categories.

The second component of the Earthscore Methodology is the formal figure, the Relational Circuit that organizes the three categories by providing each category with a position in the circuit. The Relational Circuit is to the Earthscore system what the staff and bars are to classical music notation. For the purposes of sustainability, it is important that Earthscore is based on a circuit. To explain the importance of circuitry for sustainability, I draw on the work of Gregory Bateson in cybernetic theory.

The Greek word "cyber" means a steersman on a ship. How a steersman uses information from the wind and the water to control and correct his course is understood cybernetically in terms of differences that make differences. Differences in the angle of the wind make differences in how the steersman sets the tiller, which, in turn, make differences in the direction of the boat. Differences in

the direction of the boat make differences in the angle of the wind, which, again, make differences in how the steersman sets the tiller and so on around the circuit. These circuits of differences enable the steersman to identify and eliminate error in the course of a ship. To say the same thing in another way, the steersman's understanding of differences enables him to guess, with better than random success, the best course to set for his ship.

Cybernetics applies this sort of understanding to any phenomena that involves self-correction and self-organization. Bateson argues that our unsustainable life results from a mistake in the way we think. We have misidentified the unit of survival. We have thought it was our individual selves, our own kin, tribe, nation, or even our own species. But a species that destroys its environment destroys itself. Bateson argues that the unit of survival is a flexible species in a flexible environment (1972: 454-71).

Bateson identifies the unit of survival with the unit of evolution. Essentially, he is saying that the plants and animals that have evolved successfully have been flexible groups of organisms in flexible environments. Witness the redwood trees along the northwest coast before Europeans arrived. In a sense, humans have tried to exempt themselves from this orthodoxy of evolution and thus have become a heretical species. We fail to recognize the patterns that connect us with the environment. We fail to live in terms of self-regenerating circuits that would allow us, and our environment, to thrive in sustainable ways.

In terms of a curriculum for sustainability, teachers need to evolve units of mind-evolution-survival for students. That is to say, complete circuits of understanding that include students and their ecosystems using design, literature, science, mathematics, art, social studies, design, and whatever else teachers can find that will help track the circuits of differences that make differences for sustainability.

Component 3: A Process of Cooperative Learning Regulated by the Relational Circuit

The formal organization of the three generic learning skills or categories of knowledge according to the Relational Circuit allows you to create a pattern of cooperative behavior that can accelerate learning. As demonstrated, this pattern is called Threeing. It allows each learner to take turns in the different positions in the Relational Circuit and behaving accordingly. In education, the verbal version of Threeing is used.

For the purposes of the national sustainable design education conferences, these different role relationships have been codified in the following protocols for four participants, each of whom has the opportunity to play each role once.

The first category of learning, feeling and quality underlies The Intuiting Role of Poetic Response. The second category, identifying fact, underlies The Reacting Role of Devil's Advocate. The third role, recognizing pattern, underlies the Mediating Role of Seeing the Big Picture. The fourth role is that of a solo reporter, who, in the case of the sustainable design education conferences, begins each round with a summary of the responses to a set of questions each conference participant provided prior to the conference (see Component 4 for a description of how the questions were generated.)

Protocols for Cooperative Learning Groups

Reporting Role 6 minutes	Intuiting Role 3 minutes	Reacting Role 3 minutes	Mediating Role 3 minutes
Articulation of talking points relevant to subject	Listening and giving feedback as Poetic Response based on qualities and feelings	Listening and giving feedback as Devil's Advocate based on seeing obstacles and facing facts	Listening and giving feedback in terms of the Big Picture, seeing patterns, and context

Round 1 Reporting Role 6 minutes	Intuiting Role 3 minutes	Reacting Role 3 minutes	Mediating Role 3 minutes
Participant A articulation of talking points re: subject	Participant B Poetic Response	Participant C Devil's Advocate	Participant D Big Picture

Round 2 Reporting Role 6 minutes	Intuiting Role 3 minutes	Reacting Role 3 minutes	Mediating Role 3 minutes
Participant B articulation of talking points that includes results of first round and thoughts of Participant B	Participant C Poetic Response	Participant D Devil's Advocate	Participant A Big Picture

Round 3 Reporting Role 6 minutes	Intuiting Role 3 minutes	Reacting Role 3 minutes	Mediating Role 3 minutes
Participant C articulation of talking points that includes results of second round and thoughts of Participant C	Participant D Poetic Response	Participant A Devil's Advocate	Participant B Big Picture
Round 4 Reporting Role 6 minutes	Intuiting Role 3 minutes	Reacting Role 3 minutes	Mediating Role 3 minutes
Participant D articulation of talking points that includes results of third round and thoughts of Participant D	Participant A Poetic Response	Participant B Devil's Advocate	Participant C Big Picture

Component 4: A Semiotic System to Coordinate the Interpretation of What You Are Learning

The fourth component of the Earthscore method uses the Relational Circuit to transform Peirce's semiotics into a process that facilitates learning and communication in diverse disciplines among diverse groups. As a cybernetic system, Earthscore thrives on differences. To cultivate differences, Earthscore uses semiotics. Semiotics (from "*sem*," the Greek word for "sign") is a general approach based on an appreciation of knowledge as a process of generating signs. The semiotics used in Earthscore encompasses both perception and language. In principle, any kind of local knowledge, any art form and any educational or scientific discipline, can be included in this system. As described in more detail below, a sign (a quality) represents something (its object, a fact) to somebody (the interpretant, a pattern) in some respect. Peirce's system is too complex to present here, but it is inclusive of everything from a smudge of paint to a syllogism. The system exfoliates from Peirce's three comprehensive categories into a ten-fold schema, a twenty-eight-fold schema, and a sixty-six-fold schema.

During the conferences, the twenty-eight-fold schema organized the Web site of the sustainable design education initiative. Peirce's ten-fold system underlies the focus instructions sent to participants before each conference. Below is a list of the instructions sent to participants before the October 1998 national design education symposium. The results of the instructions were discussed in the collaborative rounds described in Component 3. In the list below, only the key phrases are given. This list does not include the way the instructions were specified for architecture. The purpose of the instructions was to help organize the understanding of the current state of sustainability design education in the United States.

Imagine possibilities....
Use what we have...
Invent new designs out of playing...
Predict results....
Contextualize sustainable design...
Integrate sustainable/solar design into Earth systems...
Engage social, economic, and political problems...
Create new forms through sustainable design, use of solar...
Criticize current sustainable/solar design...
Reason about sustainable/solar design...

Peirce's tenfold semiotic system, of course, is philosophical and does not address any particular subject (Merrell 1996). Below is a generalized codification of his tenfold system to indicate how it can be used in developing specific focus questions for any discipline. The codification also includes an indication of the sort of role that each question invites the participants to play. You can get an idea of how this might work in your context by filling in the "..." with the name of your subject area.

Sign 1. Any feeling about anything for anybody
As a dreamer about...and sustainability, what mood would you cultivate that would best support your dreaming?

Sign 2. Some specific index about anything for anybody
As someone skeptical, what stance would you take in discussions about using...to cultivate sustainability?

Sign 3. Some specific index about something for anybody
As an amateur...a tinkerer, what experiments would you like to play around with that may or may not be related to sustainability?

Sign 4. Some specific act about something for somebody
As an engineer, what specific problem regarding sustainability would you like to solve?

Sign 5. Some pattern about anything for anybody
As a storyteller and mythmaker, what comprehensive visions or stories of the complex process of using...to achieve sustainability could you generate?

Sign 6. Some pattern about something for anybody
As an investigative reporter looking for clues about how...fails to support sustainability, how would you go about your investigation?

Sign 7. Some pattern about something for somebody
As an activist, how would you organize your school community to address a specific obstacle to creating a sustainable society?

Sign 8. Some pattern about some pattern for anybody
As an artist, how can you best stimulate your students to imagine a future in which...operates in the service of sustainability?

Sign 9. Some pattern related to some pattern with some specific effect
As a critic, how can you equip your students to think critically about schemes, visions, plans and policies for sustainable societies?

Sign 10. Some pattern related to some pattern that results in some habit
As a master teacher, how can you teach your students to think about sustainability and the future so that the students can establish the habit of living sustainably?

Component 5: Creative Envisioning Understood in the Context of Sustainability

The fifth component of the Earthscore method is specifically concerned with creativity. We must dream the sustainable life before we can live it. Students will have to help invent sustainable societies. Such an inventive process will require releasing the creativity inherent in young people. In the Earthscore approach to education, there is a basic necessity to respect intuition and support discipline that fosters creativity. Creative envisioning involves an instant vision of a complex process. The vision occurs in the mind like a fist in the hand because there is a spontaneous, intuitive appreciation of a pattern. In Peirce's categories this is a combination of firstness and thirdness, that is, the firstness of thirdness.

The fifth component is engaged when one undertakes a project creatively, based on explorations of the subject of the project, using the first three components exfoliated into the ten questions. For instance, in the case of the Sustainable Design Education Conferences, the "Next Steps" portion of the conferences gave

participants the opportunity, based on the results of their collaborative learning groups, to propose steps to transform design education for sustainability.

Another concrete example of creative work relevant for the Earthscore educator is James Lovelock's Gaia Hypothesis. In the 1970s, the atmospheric scientist and inventor, Lovelock, began thinking about the atmosphere of the Earth. The atmosphere's peculiar mix of gases could not be explained according to the laws of chemistry. Twenty-one percent oxygen in the atmosphere was an anomaly in terms of how gases would ordinarily mix. Yet twenty-one percent oxygen was critical to maintaining life on planet Earth. Four percent less and many forms of life would die of oxygen starvation. Four percent more and most woodlands would burn up with the next lightening fire. Other such anomalies struck Lovelock. Three percent salinity in the ocean supported many life forms, which would die if that percentage were altered. A constant range of temperatures had been maintained over the history of the Earth, despite a twenty percent rise in the temperature of the sun. Lovelock guessed that maintenance of all of these mechanisms could not be explained unless one posited that the Earth itself is a self-regulating, self-correcting, "living" organism. His creative envisioning, his abduction in scientific terms, his creative intuitive leap was that life is as much a part of Earth as feathers are part of a bird. Lovelock named his intuition the Gaia Hypothesis, after Gaia, the Greek goddess of the Earth.

Stated simply, Lovelock's Gaia Hypothesis argues that the Earth is a living organism. Not metaphorically but cybernetically. Thinking in circuits, thinking cybernetically, a very intuitive scientist has given us a rather startling and rich understanding of the Earth. As of this writing, Lovelock and others are busy identifying mechanisms of planetary self-correction, and a scientific consensus about the validity of this hypothesis is steadily building. As is proper in the scientific method, the abduction of the initial guess must be confirmed by careful induction from evidence. Once such a guess enters the realm of scientific law then we can safely deduce from that law certain predictions about what will happen to the self-correcting mechanisms of the planet. If the Gaia Hypothesis holds up, as of now most scientists are endorsing a "weak" version of the hypothesis, understanding those predictions will help us learn to regulate our behavior accordingly.

Regulating our behavior according to the self-correcting mechanisms of the Earth is critical for a sustainable society. Learning how to achieve such self-regulation, as a flexible species in a flexible environment, is what Earthscore education is about.

In addition to being articulated as a method for education, Earthscore has been articulated as a notational system for using video to interpret ecological systems (Ryan 1991). Based on this notation, I have designed a full-scale environmental television channel about the Hudson River ecosystem for the people who

live in that ecosystem so they can live there without destroying their ecosystem. Because this design is formal, it could be adapted and built by any community seeking to live in its place sustainably (Ryan, 1993).

PART THREE: INSTRUCTIONS FOR THREEING

When all else fails, read the instructions.
Anonymous

CHAPTER 6

Organizing Groups in Threes

The purpose of this chapter is to offer schemas for organizing people into groups of three. The schemas range from organizing groups over which you have authority to organizing your peers. The ways of organizing presented here can apply to both verbal Threeing (Chapter 7) and nonverbal Threeing (Chapter 8). You know your situation best and you are in the best position to select and adapt a schema for your context.

Organizing Participants as a Teaching Authority

As a person in a position of trust—of authority—you need to take responsibility for combining and recombining your group into teams of three or four. One way to do this is to ask everybody to take the Performance Profile (see Appendix II) and then combine the members of the group according to how their skill sets complement each other. After scoring the profile, ask all members of the group to go to three separate corners of the room according to their strongest skill set. Then re-divide the group so each of the four corners has the same number of people. You do this by asking any "extras" to go to the fourth corner. You may also have to ask some people to go to a corner that matches their second skill set. Assure everybody that they will play all roles. When you have an equal number of people in each corner, let them count off around the room, one to four. As groups of four, they can then start the exercises. Use any odd person out as an observer or a substitute. It is a good idea to have some "extras" in case people are absent or opt out of the process. Depending on your situation, you might want to recombine the groups periodically using both the Performance Profile and your own sense of who can best work together. Also, understanding the various peer

combinations presented below will help you think through other options for recombining participants.

As an Administrative Authority

If you are in a position of administrative authority, you might invite three subordinates of equal rank to learn Threeing so they can function as a team of advisors for you. Assign each member of the three person group a prime domain that coincides with their skills as shown by the Performance Profile. As the team develops competency, you might, in fact, want to delegate certain decision making to them, again in accordance with their skills and appropriate domains. In such a decision making arrangement, you would place yourself in the role of the fourth party. Recall that the fourth party is the one who helps with decision making. In such arrangements, a clear and fair division of tasks and responsibilities is important.

As a Facilitator

As a facilitator of Threeing in a formal setting, you need basic interpersonal skills such as connecting with the participants and patience. Moreover, you need an in-depth understanding of this book. As a facilitator, you should take the Performance Profile and sketch your experience with two other people (see the first two lessons provided in Chapter 7). Completing the profile and answering the questionnaire about your experience with three person relationships will give you a reference for orchestrating the experience of participants. If you can gain some in-depth experience with both verbal and nonverbal Threeing before facilitating, such experience will be helpful. Besides experiencing Threeing, knowing yourself, and understanding the Three Person Solution, you must also, as much as possible, respect the choices of participants and encourage them to honor their own choices. Threeing will not work as a forced practice. The participants constantly renew choice, so if you do not respect their right to choose, you will undercut your own efforts.

As a Peer Initiating Informal Threeing

If you want to work with peers in an informal way —say with members of your gardening club—the simplest approach is to pass this book around and see if you get any takers. You might spark the interest of your peers by observing how the two against one dynamics work in your particular group (see Chapter 1). One playful way to put the dynamics of Threeing in high relief is to enact a practice that appears in parts of China. When one person asks another a question in the presence of a third person, the one answering the question speaks as if the third

person had asked the question, so as not to exclude that third person. You could also encourage peers to take the Performance Profile and talk about the results. Making a tricolor talking stick and working through some exercises in the ten lessons given below can also spark interest. Depending on your group dynamics, the group may or may not be able to ease into using Threeing. At a certain point, your group may want to shift from informal Threeing to formal Threeing. Another option is to form a new group with the explicit intention of practicing Threeing rather than "bowling alone."

As a Peer Initiating Formal Threeing

Threeing is something you need to learn. You cannot play chess seriously with someone who does not know the rules. Apart from informal and formal learning situations, it makes no sense to try to practice Threeing with people who have not learned to Three. You will just expose yourself to confusion. Only practice seriously with those who know how. When there is no trustworthy authority to take responsibility for the group dynamics of Threeing, you must be especially alert to the well being of your peers. If you intend to do both verbal and nonverbal Threeing with peers who are not used to nonverbal work, secure a reliable measure of trust with the tricolor talking stick before moving to the nonverbal yoga of Threeing.

In the selection of peers to work with, you are exposing yourself to emotional risk. Relationships are very important to us. We take them seriously. After reading this book and thinking about what is presented, I believe you will agree that the form of Threeing itself is trustworthy. However, the people you practice with must also be worthy of trust. Be cautious. Trust yourself. Don't be afraid to say "No" to an invitation to Three with someone you do not trust. When you initiate Threeing, take care to select people whom you trust or feel you can come to trust.

One way of protecting yourself and others is to start by using formal criteria to identify a pool of possible participants. Depending on the context, either yourself; yourself in consultation with likely participants; or yourself, likely participants, and appropriate sponsors establish the criteria for who is in the pool. The criteria could rule out people who don't fit the situation and would include some specification of the commitment required. For example, the criteria for a group of collaborative artists sponsored by a gallery, might include a track record of exhibitions and the commitment to work together for three months. Based on those criteria, you then can invite participants to be members of the pool. People are free to accept or decline the invitation into the pool. The preferred number of possible participants in the pool would be either a multiple of three or four, or a

common multiple of both three and four, such as twelve. Within the pool of peers itself, participants would make choices in the following way.

A invites B to be part of the same trio.

B accepts.

B suggests someone else from the pool, C, to complete the trio.

A agrees.

B and A then invite C.

C accepts and suggests D as a fourth party.

B and A agree.

C, B, and A invite D to play the role of the fourth party.

D may also agree to take part in the trio and let A, B, or C play the role of the fourth party at times.

If any potential participant does not accept an offered invitation, the inviting party or parties simply select someone else from the pool to invite until there is a trio or a quartet. The mutually selected participants can then learn the flow pattern proper to Threeing and engage in a few rounds of Threeing, either verbal or nonverbal. If any participant is not comfortable with the practice, he or she can ask for more rounds or terminate the group and return to the pool.

Depending on your situation, you might use Threeing to start and sustain a group that has a purpose other than Threeing itself. Often with a new group, the good feelings last for a while and then interpersonal difficulties arise and split the group. With the practice of Threeing, you can grow the group in any number of ways without suffering splits. As described above, you could begin by inviting a group of three to work with you. Along the lines described above for administrators, they might begin by functioning as an advisory group and then move to sharing some decision making. Once they secured a working understanding of Threeing and their responsibilities, each person could, in turn, invite two or three people to work with them and delegate authority as appropriate. Each of the nine could each invite two more people. The organization could grow exponentially.

As much as possible, you want to make sure that everybody is willing to work with everybody else. If you invite three people to work with you who have a history of unhealthy antagonisms, you are risking the possibility that such antagonisms will arise and undo your group. On the other hand, you might want to use Threeing to help heal such antagonisms. If so, you should make that intention explicit to the group. In either case, the formal peer selection process above insures everyone has accepted everyone else into the group.

As One of Four

As mentioned, the exercises in Chapter 7 are formatted for optimal use by four people. As the person who started the program, you have a *de facto* authority.

Obviously, you want to hold the group together until it has a life of its own, but you do not want to destroy it by dominating it. You will need to relinquish your natural authority, gradually, to the whole group. This situation calls for a series of judgments on your part. Aided by the comments from your selected peers, these judgments should not be hard to make. In effect, you can start by being both the fourth person and the facilitator of the group and then yield these roles to others as they learn to Three.

As One of Five

With a fifth person in the loop, you need some extra roles. Members of the group should take turns playing these extra roles. One extra role is simply being ready to fill in if someone cannot make a meeting. Another is to act as an advocate for the fourth person as that person interacts with the three others. For example, in a given exercise, the fourth person might make a proposal to the three for their feedback. Their feedback could overwhelm the proposal maker. In such an instance, the fifth person can act as the proposal maker's advocate. Another role a fifth person can play is to act as an observer for the whole session and provide general commentary at the end of the session. For example, he or she might comment on how well the participants played the different roles.

As One of Six

With six people, there are twenty different three person combinations possible. Each person would have the opportunity to practice Threeing as part of ten different combinations. When the three needs a fourth person, they can borrow that person from the other group of three or make use of a pre-designated seventh person. To the right is a schema of the ten combinations. If you wish to work with these combinations simply assign one letter, A, B, C, D, E, or F, to each person in the group of six. Each week, going down the list, use a different combination. When you have exhausted the ten combinations, repeat the sequence.

BCA	DEF
BDA	CEF
BEA	CDF
BGA	CDE
CDA	EFB
CEA	BDF
CFA	BDE
DFA	BCE
DEA	BCF
EFA	BCD

If you are alternating between two person relationships and three person relationships, working with at least six people is best. Six people make possible three different sets of two person

combinations. Just as six can rotate through the three person combinations, so six people can also rotate through the sets of two person combinations.

Set One	Set Two	Set Three
A and B	A and D	A and F
C and D	C and F	B and C
E and F	B and E	D and E

As One of Seven or More People

With seven or more, you simply break into smaller groups of three, four, or five, depending on the number of participants and the exercises involved. Periodically, it is a good idea to recombine participants so cliques do not develop. Have regular open discussions about the process.

Reproducing the Trio, Expanding to Nine

By predetermined arrangement or mutual agreement, a trio may decide to expand exponentially to create an intense collective. Here is a detailed approach to creating an intense collaboration among nine people based on Threeing.

Using the same procedure that A, B, and C used to configure their trio, A, B, and C can expand their trio to nine participants. A chooses two new people from the pool, then B chooses two new people from the pool, then C chooses two new people from the pool. In this sequence, any person chosen, including those chosen by A, B, and C, has the right to veto any new choice. The nine may want to invite a tenth person to facilitate their decision making.

In any triadic combination selected from nine people, no two participants should participate in more than one combination. Observing this rule, at any one time a participant in a nine person group could work in four different trios. The different trios could do different sorts of work. A fixed member trio could take care of whatever it took to keep the collective functioning. Another rotating trio could simply practice Threeing as a way of caring for each other. The remaining two trios could pursue whatever activity made sense for the group. On the following page is a chart of the combinations for all four sorts of trios.

The originating trio makes decisions that affect the nine member group, in consultation with the remaining members. This trio can select an outside party to play the role of fourth party or they can invite another trio to select the fourth party or use the pre-designated tenth person.

Trio to support group functioning: fixed members	ABC	DEF	HIJ
Trio to take care of each other: rotating members	ADH	BEI	CFJ
Trio to do whatever: rotating members	CEH	AFI	BDJ
Trio to do whatever: rotating members	AEJ	BFH	CDI

The originating trio is also charged with maintaining the proportionality of the work undertaken in the different trios to ensure the success of the collaborative. The proper proportionality will vary greatly with the context in which the collaborative is working. In general, however, when the regular practice of Threeing as a way to care for its members is neglected or the amount of time spent in the functional trios is not enough to support the collaborative, participants should review the situation.

Face-to-Face-to-Face and Online

As mentioned in the Introduction, given that a circuit structures the practice of Threeing, a rich congruence between live practice and online communication is possible. As part of its responsibility for maintaining balance, the originating trio is also responsible for insuring proportionality between on site face-to-face-to-face practice and online communication. Broadband, real-time, electronic Threeing via video is conceivable. However, it seems face-to-face-to-face practice remains necessary because participants can always manipulate and falsify electronics in a way that face-to-face-to-face communication cannot. The group cannot assume the required level of interpersonal trust without providing for interpersonal presence. Still, perhaps this trust can be generated by some combination of practicing Threeing with those participants who are proximate and working with others who are only available online. My own experience teaching online and on-site suggests to me that there would be many viable ways to work out this issue. Again, the critical issue is to create trustworthy communication among the collaborators.

Substitutions

With reasonable cause, any one participant in the above situations can offer a substitute from the pool to play his or her role in the trio for a specified time. The remaining participants can accept or reject the substitute.

Dissolving Trios

If a member of a trio feels that the others in the trio are not respecting his or her singularity, let that member announce the difficulty. If the trio cannot or does not respond successfully, let that member withdraw from the trio without a penalty. To insure that the mechanism of excluding a third party is not in play, either consciously or unconsciously, let the remaining two members of the trio not recombine with each other until each has recombined with at least two other members of the pool of participants.

Couples

Given the difference in kind between two person relationships and three person relationships, it is best for couples to choose two other couples for Threeing, rather than choose solo collaborators. By choosing two other couples, a couple can both reinforce the natural collaboration with their chosen partner and gain the benefit of working in threes. By contrast, mixing two person relationships with three person relationships runs the risk of confusion that will undermine both. Separate and mutually reinforcing arrangements optimize the benefits of collaboration.

The procedure for mutual selection of couples is the same as the procedure given above for individual artists. With three couples, each person can be a member of four trios that do not include his or her partner. Participants can organize these four trios according to the chart below.

Couples: A1, B2, C3		
Functional trios fixed membership	12C	AB3
Threeing trios (Rotating)	BC1	23A
Trios to do whatever (Rotating)	ABC	123
Trios to do whatever (Rotating)	13B	AC2

If three collaborating couples decide to expand the group, each couple should find two other new couples to collaborate with, and the eighteen people can operate with an organizational structure similar to the chart above, changing those things that need to be changed.

Expanding the Nine

The expansion from three to nine participants can be repeated by the nine participants expanding to twenty-seven. In principle, this exponential growth can continue until the pool of possible participants is empty. In the exponential configurations described so far, the objective is to build up stable, long-term bonds among participants by recombining participants in multiple recurring trios. One can also envision another scenario for exponential growth in which each person is a member of only one trio at a time and the objective is to coordinate a large number of responses to a particular issue. For example, in a political context, a large network of trios could respond quickly to a proposed bill in Congress using the Internet. Three to the tenth power is over 59,000 people, more than a full house at Yankee Stadium.

Incorporating Expertise

If you want to incorporate different realms of expertise into the work of your group, yet another kind of configuration is possible. Imagine a city trying to address the risks associated with global warming. These risks would be researched and evaluated by twelve teams of stakeholders. Four teams of stakeholders are composed of city residents most at risk, and eight teams would represent functional subsystems of modern society—law, science, economics, politics, media, religion, education, and art. Each of the twelve teams has four members and a support person. After research and evaluation using the practice of Threeing, these twelve teams of stakeholders recombine into collaborative teams. The collaborative teams would never include two members from the same stakeholder team. The task of these collaborative teams would be to use the sort of problem solving and creativity exercises described below to generate optimal responses to the risks in question. This choreography for combining expert knowledge with collaborative creativity could be adapted to academic settings where there is interest in working with transdisciplinary projects. In academia, Peirce's semiotic system would prove especially useful for orchestrating transdisciplinary knowledge (Ryan 2002).

Creating Community

One can also imagine a collective of thirty-six people, each person being a member of three different trios corresponding to firstness, secondness, and thirdness. The firstness trio would take care of its members, the secondness trio would take care of business, and the thirdness trio would keep the collaborative function in

terms of some larger whole. In general, more participants mean more choices and more choices mean a greater need to figure out governance for the whole collaborative.

CHAPTER 7

Ten Lessons in Verbal Threeing

As an authority within a group, you obviously already have your personal style of leadership. Digesting this book as an individual will enable you to think about how you might integrate Threeing into your style and your context. For that purpose, I advise reviewing Chapters 4 and 5.

This chapter provides a sequence of three person verbal exercises. The sequence is designed to enable your group to gain a working understanding of the Three Person Solution. In all, ten lessons are organized around the device of the tricolor talking stick. As mentioned in the introduction, readers have the option of engaging these lessons either before or after they learn the nonverbal version of Threeing.

These ten lessons enable you to teach a group under your authority or to initiate a peer group. Each lesson is ninety minutes long. Depending on the time available and the pacing of the group, the ninety minutes could extend to two hours. Each lesson requires an hour of solo preparation by each participant. Here is a list of the lessons.

1 Profiling Skills and the Talking Stick
2 Evaluating Three Person Experiences
3 Dividing Goods and Tasks
4 Making Decisions
5 Reading Peirce
6 Imitating Sherlock Holmes
7 Solving Problems
8 Cultivating Creativity
9 Planning to Three
10 Considering the Yoga of Threeing

Lessons 1 through 4 are essential for learning Threeing. Lessons 5 through 8 are optional, but highly useful. Lessons 9 and 10 guide you in making a transition from this verbal course to an ongoing use of Threeing that may include nonverbal Threeing. After fifteen to twenty hours for the full course, another lesson lasting from ninety minutes to two hours could be added, one for each member of the group. Each member would use the time to make an explicit proposal to apply Threeing to the group itself or to another group. The group would offer feedback on the proposal using the talking stick protocols.

A key to these ten lessons is the Performance Profile. As indicated, the Performance Profile is a self-evaluation questionnaire that shows how one's own skill sets map onto the roles for Threeing. If you are considering teaching Threeing, I suggest you take the Performance Profile yourself before you read through the ten lessons. Taking the profile first will deepen your appreciation of how the lessons work.

This course is organized for maximum flexibility. These ten lessons could serve as the basis of a college level course over a semester. Resources are cited after each lesson for those who wish to create a college level course based on Threeing. Given proper preparation by participants, you could offer the first four essential lessons in a day-long workshop and the remaining optional lessons woven into subsequent on-the-job training. You could compress the first eight lessons, including preparation, into a three-day weekend. The lessons are sequenced so they can work well in pairs. In other words, if you wanted to do three hours a day for five days, Lessons 1 and 2 fit well together, as do 3 and 4, 5 and 6, 7 and 8, and 9 and 10. The ten lessons, including preparation and individual sessions, could organize a four-day intensive.

While engaging in three roles is the core of the program, a fourth person is recommended to ease learning the roles. With four people, participants can take turns as the fourth person. They can form a learning group of peer teachers. Groups that are multiples of four, with eight, twelve, or more members, offer participants more opportunities to learn from more people. Please see Chapter 6 for various ways to configure groups. We move now to Lesson 1 of the short course for verbal Threeing.

Lesson 1: Profiling Skills and the Talking Stick

Threeing involves learning how to play three different roles. In Lesson 1, participants profile their skill sets in relation to the three roles and learn how to use the tricolor talking stick.

Preparation (for everyone):

Take the Performance Profile.

Read the Introduction and Chapter 1 of *The Three Person Solution.*

Objectives:

Make introductions among the participants by referencing their skill sets as indicated by the Profile Performance.

Learn how to use the tricolor talking stick.

Materials:

Performance Profile

Comfortable private room, big enough to divide everybody into small groups of three and four, ideally around a small round table

Tricolor talking sticks (one per three participants)

Copy of Chapter 1 of *The Three Person Solution*

Procedures:

Welcome all. Review the structure of the course, noting any changes. Participants can follow the course description in the book and note modifications. Each person introduces himself or herself to the group referencing the Performance Profile, maximum thirty seconds per person. Discuss the profiles briefly. Ask any skeptical participants to wait until they have done some of the exercises before deciding the value of the profiles. (Estimated time: 15 minutes)

Configuring Teams by Choice (Option 1):

Separate the group into three smaller groups of equal size according to skill sets. To have equal groups, you may have to ask some participants to join a group based on their second strongest skill rather than their first strongest skill. Assure everyone that they will get the opportunity to work in all three skill sets.

Ask each participant in the first skill set group to count off from the number one through how ever many "first skill" participants there are. Then, following the numbers called out, ask each participant to select one person in the second set. Then ask the pair to select one person in the third set. Seat each group at separate tables and provide everyone with instructions for the talking stick.

Configuring Groups by Assignment (Option 2):

Separate the participants into skill set groups as explained above. Ask participants in each skill set group to count off. Then, match the numbers together in each group. Seat each new group at separate tables and provide everyone with instructions for the talking stick. (Estimated time: 10 minutes)

Instructions:

Include instructions for the yellow, red, and blue roles and the confrontational protocols. Note that normally two combine against one and the tricolor talking stick prevents such alliances. Remind participants that when they don't have the stick, they listen.

Here is a detailed review of how the confrontational protocols work. At any point in the exchange among three, one member of the group who has the stick can directly challenge another member of the group by laying the talking stick on a horizontal line between the two of them. He or she then addresses that person using the type of adversarial or confrontational statement described in Chapter 1. The person addressed directly then can turn the stick around and respond. The third person can also enter this exchange if one of the two in confrontation points the stick at the third person.

Three times back and forth between two people is a reasonable limit. Then, one of the people must point the stick at the third person or point it upward. Pointing the stick at the third person is asking that person to enter into the confrontational behavior. Pointing the stick upward is to offer a fresh proposal for non-confrontational consideration. The triad then works through the fresh proposition in the three roles. If there is no consensus among the three, then a decision making procedure (see Chapter 2 above and Lesson 4 below) comes into effect.

Comparing the protocols with the nonverbal practice can make the confrontational protocols clearer. Holding the stick vertically, with yellow at the bottom, indicates the complementary behaviors, which corresponds with the three positions of initiator, respondent, and mediator. Holding the stick horizontally indicates confrontation and corresponds to the outer lines of the floor diagram that accommodate face-to-face, nonverbal symmetric behavior (see pages 113-120). Imagine yourself as one of three people standing on the arcs. The process of symmetric interaction, or confrontation, would consist of one person oscillating from one end of her arc to another. At each end of the arc, one of the other two people would stand and face the oscillator. Standing face-to-face, they would mirror each other's behavior in sound and movement. This pattern is like playing monkey-in-the-middle without the ball. Each person takes a turn being the "monkey." (Estimated time: 10 minutes)

Tricolor Talking Stick Exercise #1:

Red takes the stick and, based on his or her reading of Chapter 1, explains, in his or her own words, the problem of the relational dilemma.

Yellow takes the stick and explains, in his or her own words, the formal solution.

Blue takes the stick and explains, in his or her own words, how the solution applies to the problem.

If anyone disagrees with any explanation, that person initiates the confrontational protocols. (Estimated time: 15 minutes)

Tricolor Taking Stick Exercise #2:

Review protocols. Change roles. Person in yellow moves to red role. Person in red role moves to blue role. Person in blue role moves to yellow role.

For the sake of argument, yellow offers a hypothetical "solution" to the relational dilemma that does not involve a third party.

Red reacts to the proposed solution.

Blue attempts to mediate.

Initiated by yellow, all three deliberately go into the confrontational protocols to sustain the disagreement. After arguing back and forth three times, yellow goes back into the first skill set position and restates his solution. Red responds and blue mediates. Participants do not go to the confrontational roles. (Estimated time: 15 minutes)

Please note, it is important the group finish in the yellow, red, blue complementary roles and not the confrontational roles. Finishing in the confrontational roles, leaves participants in a "fighting mood" without finishing the fight. Such unfinished business is not good for group dynamics. Even if participants disagree, they can agree to disagree and postpone the argument. Point out that if disagreement persisted and they could not agree to disagree, nor could a fourth party arbitrator work things out (see below regarding decision making), then they could opt out of that trio. The facilitator should also give participants a chance to talk in twos and just be quiet so they can make the adjustment back to the everyday world in which Threeing does not take place.

Talking Stick Exercise #3:

Review protocols. Change roles. Person in yellow moves to red role. Person in red role moves to blue role. Person in blue role moves to yellow role.

Yellow demonstrates how the game of paper-rock-scissors is like the talking stick.

Red comments on the demonstration, stressing how paper-rock-scissors is different from the talking stick.

Blue mediates between yellow and red, showing both how paper-rock-scissors and the talking stick are the same and how they are different. (Estimated time: 10 minutes)

Discussion:

As a group, process the exercises. Let each participant discuss how the skill sets shown in the performance profile overlapped with the talking stick exercises. (Estimated time: 15 minutes)

Extra:

Read *King Lear*. Write a tricolor talking stick trialogue in which the three daughters of Lear resolve their difficulties without causing their father to suffer.

Read *Julius Caesar*. Write a tricolor talking stick trialogue in which Cassius, Brutus, and Mark Anthony resolve their differences instead of killing Caesar.

Lesson 2: Evaluating Three Person Experiences

Threeing clarifies experiences of problematic relationships. In this lesson, participants will take a quiz that evaluates the health of some of their three person relationships. They will also talk about their relationships using the talking stick, trying to identify the problems in the relationships in the terms provided in Chapter 2.

Preparation:

Take Evaluation Quiz (below).
Read Chapter 2.

Objectives:

To practice listening with the tricolor talking stick.
To gain some skill in evaluating three person relationships.

Materials:

Comfortable private room, big enough to divide everybody into small groups of three and four, ideally around a small table
Tricolor talking sticks
Blindfolds for all participants
Pencils or pens (see end of Lesson 2)
Three copies of the three pages immediately below for each participant (Evaluating Your Triadic Experience) (see Guerin 1996)

Evaluating Your Triadic Experience:

To ground your understanding of three person relationships in your own experience, identify and rate one triad from your family, one triad of friends, and one triad of fellow workers. Use the scale below to rate your experiences with these three person relationships in terms of their relative health. Try to see the triad from the points of view of the other two members as well as yourself. The rating scale runs from one to ten. Mark unhealthy entanglements with two others toward the low end of the scale. Healthy triads that fully support the people involved are marked toward the high end.

A Family Triad

Names: Myself _____ _____

Each person lets the other two have their relationship without interfering.

Never..... 1 2 3 4 5 6 7 8 9 10.....All the Time

Each person has options for doing things that stand alone and are not simply in reaction to what others do.

Never..... 1 2 3 4 5 6 7 8 9 10.....All the Time

Each person can act as an "I" without trying to change the other two.

Never..... 1 2 3 4 5 6 7 8 9 10.....All the Time

Any two people could interact without connecting what they do to the third person.

Never..... 1 2 3 4 5 6 7 8 9 10.....All the Time

The normal situation is that each person is self-focused, not preoccupied with what the other two are doing or thinking.

Never..... 1 2 3 4 5 6 7 8 9 10.....All the Time

A Triad of Friends

Names: Myself _____ _____

Each person lets the other two have their relationship without interfering.

Never..... 1 2 3 4 5 6 7 8 9 10.....All the Time

Each person has options for doing things that stand alone and are not simply in reaction to what others do.

Never..... 1 2 3 4 5 6 7 8 9 10.....All the Time

Each person can act as an "I" without trying to change the other two.
Never..... 1 2 3 4 5 6 7 8 9 10.....All the Time

Any two people could interact without connecting what they do to the third person.

Never..... 1 2 3 4 5 6 7 8 9 10.....All the Time

The normal situation is that each person is self-focused, not preoccupied with what the other two are doing or thinking.

Never..... 1 2 3 4 5 6 7 8 9 10.....All the Time

A Triad of Workers

Names: Myself _____ _____

Each person lets the other two have their relationship without interfering.

Never..... 1 2 3 4 5 6 7 8 9 10.....All the Time

Each person has options for doing things that stand alone and are not simply in reaction to what others do.

Never..... 1 2 3 4 5 6 7 8 9 10.....All the Time

Each person can act as an "I" without trying to change the other two.

Never..... 1 2 3 4 5 6 7 8 9 10.....All the Time

Any two people could interact without connecting what they do to the third person.

Never..... 1 2 3 4 5 6 7 8 9 10.....All the Time

The normal situation is that each person is self-focused, not preoccupied with what the other two are doing or thinking.

Never..... 1 2 3 4 5 6 7 8 9 10.....All the Time

Procedures:

Divide the group into teams of four. Avoid putting people in the same groups as you did in Lesson 1. Assign initial roles: reader, yellow, red, and blue. Ask everyone to have blindfolds ready. (Estimated time: 5 minutes)

Listening Exercise #1:

Exercise #1 requires listening and evaluating. One person tells a tale of a problematic triadic relationship raised by the evaluation questionnaire. The remaining three members (blindfolded to increase their attentiveness) listen in the different skill sets. Yellow listens for feelings, red listens to try to identify the problems in the relationship, referring, if possible, to the seven problems presented in Chapter 2, and blue listens for overall patterns in the situation. Once the person has told his tale, the listeners keep their blindfolds on and report what they have heard to the speaker. The speaker listens to each without arguing or retelling. The order for feedback moves from yellow to red to blue. There is no arguing and no use of the confrontational protocols. The emphasis is on listening.

Six minutes to tell the tale. Three minutes for feedback from each role. (Estimated time: 15 minutes)

Everyone shifts roles. The reader becomes yellow, yellow becomes red, red becomes blue, and blue becomes the reader. Listeners put on blindfolds. The reader tells his or her tale and listeners take off their blindfolds and feedback in turn. (Estimated time: 15 minutes)

Rotate roles again and perform the exercise. (Estimated time: 15 minutes)

Rotate roles again and perform the exercise. (Estimated time: 15 minutes)

Discuss the experience as a group. (Estimated time: 20 minutes)

Extra: Optional Listening and Evaluation Exercise:

Configure groups of four. Avoid repeating groupings. Review talking stick. The reader reads the entire section about one of the seven problems from Chapter 2. Blue listens for overall patterns, red listens for specifics, and yellow listens for tone or feeling. Discuss the reading using talking stick. Use confrontational protocols based on symmetry as described in Chapter 1.

Change roles in the groups of four. Reader to yellow, yellow to red, red to blue, blue to reader. Repeat the exercise using next problem.

Change roles and read next problem until the seven problems are finished. Take as much time as needed.

Lesson 3: Dividing Goods and Tasks

In contrast to the pure ritual practice of nonverbal Threeing, which involves the practice of simply going around and around, verbal Threeing is usually a form of collaboration about sharing goods or about something to be done. Participants should divide goods and tasks up in terms of the three roles proper to Threeing. This lesson presents the procedure for the fair division of goods and tasks.

Preparation:

Read section in Chapter 2 on fair division.

Gather at least six to eight objects per person. The objects should be small and of unequal value. Examples would be key chains, ashtrays, knickknacks, cutlery, pens, food, books, and magazines. Have each participant bring six to eight objects or, as facilitator, you bring the objects.

Objectives:

Learn a procedure for the fair division of goods and tasks.

Anticipate the connection between dividing tasks and decision making.

Materials:

Comfortable private room, big enough to divide everybody into small groups of three, ideally around a small table

Writing material, including pencils or pens

Objects described above, six to eight objects per person

Tricolor talking sticks

Procedures:

Review the course to date and fair division procedure explained in Chapter 2.

Recombine teams of three without repeating combinations. As much as possible, configure teams in which each member is strongest in one of the three different skill sets. (Estimated time: 10 minutes)

Fair Division Exercise #1:

Use the Three Person fair division formula described in Chapter 2. Pile in one big pile at least twenty objects on each table. Let Blue start by dividing the big pile into three piles that are fair in his or her eyes. Red trims one selected pile to create at least a two-way tie for "best" pile. Red sets aside the trimmings. The three participants then make their selections. Yellow has the first choice. Then Red chooses. If any pile that Red trimmed is still available, Red must take that

pile. Otherwise, he or she has free choice. Blue takes the remaining pile. Repeat procedure with trimmings, if necessary.

Mix objects from different groups, change roles, and repeat the procedure. If time allows, remix the objects from different groups, change roles, and repeat the procedure. (Estimated time: 30 minutes)

Group discussion of fair division procedures. (Estimated time: 15 minutes)

Fair Division Exercise #2:

Your group of three agrees to make dinner together. List all the tasks required to make dinner. Work through a fair division of those tasks.

Blue divides the entire task sheet into three lists. Red trims the lists to make them fair in his or her judgment, setting aside any extras. Yellow has first choice at selecting a list of tasks to do. If any list that red trimmed is still available, red must take that list. Otherwise, he or she has free choice. Blue takes the remaining list.

Repeat the procedure with the trimmings until what is left is insignificant.

Actually making the dinner together and sharing the meal is optional. (Estimated time: 30 minutes)

Extra:

Pick a task important to your group. Go thought the procedure for fair division presented above. Read *Fair Division* (see References).

Lesson 4: Making Decisions

Pure Threeing, in itself, offers no way for a group to make decisions. In the real world, to accomplish anything, we must make decisions. If these decisions are to be made by three people without generating two against one dynamics, a formal procedure involving a fourth party is necessary. This lesson teaches that procedure.

Preparation:

Review decision making procedure described in Chapter 2.

Objective:

Learn the decision making procedure proper to Threeing.

Materials:

Comfortable private room, big enough to divide everybody into small groups of three and four, ideally around a small table

Assessment material, including pencils or pens

Tricolor talking sticks

Procedures:

Configure teams of four. Avoiding repetition of roles, assign the three roles and the role of a fourth party. If you have extra people, let each observe one group and consult with the fourth party when appropriate. (Estimated time: 10 minutes)

Making Decision Exercise #1:

Three members of your team will present brief public statements to the whole group about some issue that the whole group cares about. All three members will "sign on" and take responsibility for the three statements. The issue should mean something to your group. For example, if the group consists of teachers organized to change the English curriculum in a high school, then the statements should reflect this concern.

The three statements will reflect the three skill sets. Assign three members of the team to write the respective statements. Yellow's statement will be emotional. Red's statement will be factual. Blue's statement will be about patterns. The fourth person will serve as arbiter to help decide whether all three will sign onto the respective statements or not.

Each member of the team takes five minutes to write out a brief statement of twenty-five words or less. (Estimated time: 5 minutes)

Yellow reads his or her statement. Red and Blue have the opportunity to ask for clarification or rewording. Yellow revises and repeats his or her statement. red agrees or disagrees with the statement. Blue agrees or disagrees with the statement. If both agree, the statement will be signed by all three and announced publicly. If both disagree, the statement will not be made public. If either red or blue disagrees and convinces the arbiter to disagree, then the statement will not be made public. If the arbiter is not convinced to disagree, then that statement will be made public, endorsed by all three. Three can override one. Two against one dynamics are precluded. (Estimated time: 15 minutes)

Repeat the procedure for red's statement. (Estimated time: 15 minutes)

Repeat the procedure for blue's statement. (Estimated time: 15 minutes)

Gather the group. Let each team read the statements they have endorsed. (Estimated time: 10 minutes)

Have an open discussion about the decision making process proper to Threeing. (Estimated time: 20 minutes)

Extra: Making Decision Exercise about Dinner:

Simulate this scenario: Three of you want to go out to dinner. The decision to be made is where. Each person proposes a restaurant and argues for that restaurant using the talking stick protocols. Yellow proposes a restaurant, paying attention to taste and quality. Red objects based on difficulty of access and expense. Blue references the overall context and mediates between the two. Use confrontational protocols, if necessary. Have a fourth party designated to resolve any two against one situation. If a two against one situation arises, resolve it by appeal to the fourth party. Rotate roles. Repeat. Rotate roles. Repeat.

Lesson 5: Reading Peirce

The Three Person Solution depends on three people taking turns playing three roles. These three roles are shaped according to the three comprehensive categories of philosopher Charles Peirce. As mentioned, he named these categories firstness, secondness, and thirdness. This lesson is designed to deepen the understanding of these categories by reading Peirce's own descriptions and discussing these readings in teams of four.

Noting that Peirce expanded his three comprehensive categories is important. The expanded version includes the firstness of secondness, the firstness of thirdness, and the secondness of thirdness. The firstness of secondness refers to feelings associated with a fact; for example, a slap on the hand is a fact that has feeling associated with it. The firstness of thirdness refers to an immediate grasp of pattern like a fist in the hand. Thirdness itself generally uses an "if ...then" process of reasoning to interpret pattern. The secondness of thirdness refers to the force of law. For example, when a sheriff grabs a perpetrator on the shoulder because he or she is under arrest for breaking the law. During the discussion of Peirce, participants might need these expanded categories to clarify the discussion of firstness, secondness, and thirdness.

Preparation:

Select passages from Peirce's writing about the categories of firstness, secondness, and thirdness. A good selection appears in Charles Peirce's "The Principles of Phenomenology" in *Philosophical Writings of Peirce*. This selection also includes passages about the interrelationships among firstness, secondness, and thirdness.

Think of examples and explanations of his categories that Peirce does not use.

Objective:

Deepen participants understanding of firstness, secondness, and thirdness.

Materials:

Comfortable private room, big enough to divide everybody into small groups of three and four, ideally around a small table

Notepads and pencils for everyone

Texts written by Peirce

Tricolor talking sticks

Procedures:

Recombine participants. Divide into teams of four, the three roles plus a reader.

Avoid repeating combinations. Use the tricolor talking stick. (Estimated time: 5 minutes)

Reading Firstness Exercise #1:

Yellow paraphrases the passage in his or her own words and gives examples Peirce did not use, including examples from the actual physical place in which the team is meeting, such as the firstness, secondness, and thirdness of a chair in the room.

Red responds to yellow's presentation.

Blue meditates between yellow and red.

If there is disagreement, participants use the confrontational protocols among themselves and use the reader as a fourth party to make any necessary decisions.

Rotate roles. Reader becomes yellow. Yellow becomes red. Red becomes blue. Blue becomes reader. (Estimated time: 20 minutes)

Reading Secondness Exercise #2:

Reader reads passage on secondness.

Yellow paraphrases the passage on secondness in his or her own words and gives examples Peirce did not use, including examples from the actual physical place in which the team is meeting.

Red responds to yellow's presentation.

Blue meditates between yellow and red.

If there is disagreement, participants use the confrontational protocols among themselves and use the reader as a fourth party to make any necessary decisions.

Rotate roles. Reader becomes yellow. Yellow becomes red. Red becomes blue. Blue becomes reader. (Estimated time: 20 minutes)

Reading Thirdness Exercise #3:

Reader reads passage on thirdness.

Yellow paraphrases the passage on thirdness in his or her own words and gives examples Peirce did not use, including examples from the actual physical place in which the team is meeting.

Red responds to yellow's presentation.

Blue meditates between yellow and red.

If there is disagreement, participants use the confrontational protocols among themselves and use the reader as a fourth party to make any necessary decisions.

Rotate roles. Reader becomes yellow. Yellow becomes red. Red becomes blue. Blue becomes reader. (Estimated time: 20 minutes)

Relating Firstness, Secondness, and Thirdness Exercise #4:

Reader reads passage about how the categories relate to each other.

Yellow paraphrases the passage in his or her own words and gives examples.

Red responds to yellow's presentation.

Blue meditates between yellow and red.

If there is disagreement, participants use the confrontational protocols among themselves and use the reader as a fourth party to make any necessary decisions. (Estimated time: 20 minutes)

Extras:

Get a Marx Brother's movie. Analyze the movie in terms of Harpo playing the role of firstness, Chico playing the role of secondness, and Groucho playing the role of thirdness.

Read Gilles Deleuze's *Cinema 1*, in which Deleuze classifies all of classic cinema in terms of firstness (the face, the affective image, as in Bergman's *Persona*), secondness (action movies, westerns such as Sam Peckinpah's *The Wild Bunch*), and thirdness (interpretive movies such as Alfred Hitchcock's *The Trouble with Harry*). View some of the movies he cites through the lens of firstness, secondness, and thirdness.

Read Peirce and books about Peirce (see References).

Lesson 6: Imitating Sherlock Holmes

The work of fictional detective Sherlock Holmes exemplifies the use of Peirce's categories. By playing his violin in oblivious rapture and cultivating his intuition in the middle of a case, Holmes is operating in the first skill set. Holmes crawling around on the floor with his magnifying glass looking for clues is operating in the second skill set, searching for specific facts. Explaining to Doctor Watson his reasoning in solving the case shows his third skill set, his "if...then" reasoning. Success with Threeing means increasing one's ability to operate in these skill sets. In this exercise, the team of three will take on a "case" of their own, using all three skill sets.

Preparation:

Read a Sherlock Holmes story, or watch a Sherlock Holmes movie. Look for his different uses of the three skill sets. *The Red-Headed League* particularly lends itself to this exercise.

Select a local "case" for your group exercise based on the needs and interests of the group. For example, if you are a group devoted to eating in good restaurants, you might send your teams to the same restaurant to investigate using the three skill sets. The first skill set would be used to pay attention to ambiance, moods of waiters and waitresses, taste of food, quality of sound, and so forth. In the second skill set, team members would note things like parking, specific seating arrangements, specials on the menu, unusual items, prices, "clues" about the place that indicate something about it. The third skill set would be used to pay attention to the overall pattern of the experience, including travel time, parking, view, type of customers, pacing of the meal, overall service, as well as comparison with other restaurants.

Other possible "cases" would be:

Investigate a local lot for a community garden.

Investigate a piece of property for sale.

Investigate a new shop in town.

Consider the time available for your case. You might have participants investigate a case on their own "preparation" time and use the entire lesson time for discussion. All participants should do the same case.

Objective:

To exercise the three skill sets in imitation of Sherlock Holmes.

Materials:

Notebooks and pencils or pens for fieldwork

Tricolor talking stick

A "case" that is convenient to investigate

Comfortable private room, big enough to divide everybody into small groups of three and four, ideally around a small table

Procedure:

Recombine the group into teams of three. Avoid repetition of same members in the same teams.

Pass out notepads and pencils or pens to each person. Instruct members that they are to operate in all three skill sets on this case, making notes under the heading of each skill set.

Give instructions to the teams about how to find the case. (Estimated time: 10 minutes)

Holmes Exercise #1:

Deploy the teams according to the case selected. (Estimated time: 45 minutes)

Gather after your investigation. Use the talking stick to go around and report your findings to your team. All go around in yellow. All go around in red. All go around in blue. (Estimated time: 20 minutes)

Gather the entire group together. A preselected member of each team summarizes the findings of the team for the group. (Estimated time: 15 minutes)

Extras:

Identify and investigate other "cases."

Read more Sherlock Holmes stories.

Watch more Sherlock Holmes movies.

Study other detectives, such as Jessica Fletcher, Poirot, or Columbo, for their use of the three skill sets.

Read "You Know My Method," an essay in which Thomas Sebeok compares Peirce and Holmes. See References.

Lesson 7: Solving Problems

Threeing can be used to organize a collaborative approach to solving problems. In this lesson, team members use their second skill set to identify and describe the problems they foresee in applying the Three Person Solution to their context. Team members then use their first skill set to think of analogies for the problem. The third skill set is used to apply the analogies to the problem. We adapt this approach to problem solving for Threeing from Bill Gordon's work on creative problem solving and presented in terms of the three skill sets (Mattimore 1993: 88-91). Gordon was part of an Allied team assigned to clear Tripoli Harbor during World War II when he first saw this strategy used.

The German Navy had scuttled some ships to block the harbor at Tripoli with explosions that blew holes in the hulls of the ships. They then used iron plates to jam the holes they blew open in the ships so the Allies could not repair the holes, surface the ships, and float them to where they would not block the harbor. This description is a statement of the problem, a use of the second skill set.

A British colonel listened to the problem and started talking about the apparent contradiction or paradox. Here was a huge ship, built to travel great distances, but they couldn't move it a few feet. Then his mind, using the first skill set, jumped to an analogy. (Analogy is based on the inference that if two things agree with one another in some respects they will probably agree in other respects.) When his mother rakes out her walled in garden in the middle of London, she always ends up with a few big mounds of leaves. She can't throw the leaves over the wall, so she just rakes and rakes until she shreds them into small pieces. The colonel then made the connection. He identified the aspect of the analogy that could be applied to the problem, using the third skill set. He ordered his men to blast the ships with small charges and then rake over the debris until they could get the British ships into the harbor.

The formula Gordon distilled from this experience is as follows: Find the paradox in your problem. Find an analogy that reflects the essence of your problem. Find the unique feature of the analogy and apply this unique feature to help you solve your problem.

By definition, a problem represents conflict. By looking for the paradox, you get to the core of the problem. (A paradox is a statement that is *seemingly contradictory*.) For example, the problem is to develop a new bandage. A paradox in conventional bandages is that although they protect the wound from germs they interrupt the natural healing flow of the body. Therefore, we can say that the paradox is the "wounding bandage." Finding the paradox involves describing the specifics of the problem so it can be seen, the second skill set.

Imagine a similar situation. Analogous to a cut in the skin is a cut electrical cord to a lamp. If one winds the electrical repair tape carelessly, one can

put a barrier between the wires he or she is trying to join. The supposed "bandage" "wounds" the thing he or she is trying to heal. (Of course, not all analogies will yield a solution. Some are better than others are, and one might have to run through most of them to find the apt analogy).

For the broken electrical cord, the essential activity is to close the circuit by twisting the wires back together. Twisting wires together reestablishes the flow of electricity. The objective of a new bandage would be to reestablish the natural flow. How would one do this? The group investigating this problem built a bandage that used magnesium, a non-toxic conductor of electricity that allowed the flow of the body's own current to help healing. In effect, they used skill set three to identify and apply the unique feature of the analogy.

Another example: Packing Potato Chips:

State the paradox in the problem:

Though thin potato chips have little weight, they take up too much space in packing and shipping.

Find an analogy:

Analogy is leaves in the fall. Like potato chips, leaves pack loosely in garbage bags.

Find unique features and apply that feature to the problem.

When leaves get wet, they can be packed together tightly. The engineers figured out a way to pack potato chips wet and then dry them. The result of this solution was the development of Pringles, the neatly stacked potato chips.

Preparation:

Study explanation above.

Prepare a three to five minute presentation that includes identifying a problem you foresee in applying Threeing to your situation, finding the paradox in the problem, finding a relevant analogy, and an application of that analogy to the problem.

Materials:

Writing materials for everyone
Tricolor talking sticks
Small tables with four chairs each

Procedure:

Recombine group into teams of four. Avoid putting people who have identified the same problem on the same teams. Avoid repeating teams. (Estimated time: 5 minutes)

Each person presents his assignment to the team. Red, yellow, and blue provide feedback to support the problem-solving effort of the presenter.

Red responds to the statement of the problem, suggesting clarification of the problem, and the paradox where appropriate.

Yellow responds to the analogy, suggesting other analogies, if appropriate.

Blue responds to the application of the analogy to the problem and suggests other ways, if appropriate. (Estimated time: 15 minutes)

Rotate roles. Presenter becomes yellow. Yellow becomes red. Red becomes blue. Blue becomes the Presenter. Repeat exercise. (Estimated time: 15 minutes)

Rotate roles. Presenter becomes yellow. Yellow becomes red. Red becomes blue. Blue becomes the Presenter. Repeat exercise. (Estimated time: 15 minutes)

Rotate roles. Presenter becomes yellow. Yellow becomes red. Red becomes blue. Blue becomes the Presenter. Repeat exercise. (Estimated time: 15 minutes)

Teams report on their findings to the group at large for discussion. (Estimated time: 25 minutes)

Extras:

Identify and resolve other problems using the same procedure.

Research approaches to problem solving. Adapt them to the Three Person Solution.

Lesson 8: Cultivating Creativity

While some might disagree, I would argue that we constrain creativity when we yoke it to a purpose. Creativity privileges the category of firstness, being such as you are, regardless of any opposition or outcome. Taking turns in Threeing enables three people to cultivate their creativity collaboratively, free of purpose. They can relate and create, go round and round the Relational Circuit together, without purpose. This lesson is designed to cultivate such creativity.

Preparation:

Relax. Do something for the pleasure of doing it.

Objective:

Cultivate creativity.

Materials:

Drawing paper and drawing pencils or thin felt markers for everyone
Pile of images cut out of magazines, twenty-five images per trio
Writing paper and pens for everyone
A yellow, a red, and a blue scarf for each trio
Round working tables for the group with three chairs each
Tricolor talking sticks

Procedure:

Combine group in teams of three. Avoid putting the same people together on new teams.

Assign each group a table. (Estimated time: 5 minutes)

Give each participant a drawing pad and a drawing pencil or marker. Each person is asked to draw one spontaneous line on the paper. All act simultaneously (first skill set). Team rotates the pad to the other members of the team. Now each member of the team reacts to the line in front of them with another single line that indicates their reaction (second skill set). Rotate pads again. Each team member takes his time and adds another line to the drawing that seeks to balance or mediate between the two lines in front of him (third skill set).

Show each other the final compositions.

Repeat procedure for as much time as you have. (Estimated time: 15 minutes)

Collaging Images Exercise #2:

Recombine teams. Place twenty-five images on the table of each team of three. Participants go through the pile and each person selects six images they like.

Rotating around the table from left to right, team members take turns initiating the following sequence. Yellow places an image in the center of the table. Red puts down a reaction image on impulse. Blue selects an image that suggests mediation between the two images in front of her and places it on the table. All take in the composition of the final collage. Rotate roles and repeat procedure until each person uses all of his or her six images. (Estimated time: 15 minutes)

Recombine teams. Assemble teams of three at small tables. Place a yellow, a red, and a blue scarf in the middle of each table. Each person selects a scarf. With eyes closed, yellow initiates some wordless sound. Red immediately reacts and responds with a sound of her own. Blue listens to both and generates a mediating sound.

When any member of the team senses the sounding is not to their liking, he or she places his or her scarf back on the table. Other members follow suit. After all scarves are back on the table, another team member picks up yellow and the procedure begins again.

Repeat for time allowed. (Estimated time: 30 minutes)

Recombine teams. Team members sit around the table. Yellow, red, and blue scarves are placed on the table. Team members select scarves and place them around their necks. Yellow extends one of his or her hands into the center of the table palm down and moves his or her hand and makes sound according to how he or she feels. Red places his or her hand over the top of yellow's hand and reacts with sound and movement. Blue places his or her hand over the top of red and mediates with sound and movement. Any team member can withdraw his or her hand. Rotate roles and repeat until all have had a turn as yellow, red, and blue. (Estimated time: 30 minutes)

Extras:

Select art reproductions and distribute them to teams. Have teams articulate their response in terms of the three skill sets.

Visit museums in teams or alone. Consider the work in terms of firstness, secondness, and thirdness.

Play selected music. Let members respond in terms of the three skill sets.

Lesson 9: Planning to Three

Incorporating this innovative Three Person Solution practice into any context takes both an understanding of Threeing and sensitivity to the context. Anybody initiating Threeing in a group is the most likely candidate to come up with a plan. During the lessons, other people may emerge as more suited. For Lesson 9, if the initiator does not present a plan, someone else needs to take that responsibility. Others can present revised plans in subsequent meetings. In as detailed a way as possible, prepare a presentation to the group of your plan for implementing Threeing. Study the cases given in Chapters 4 and 5 of this book. Here is the plan developed for implementing Threeing for worker training.

Define clear objective for the workshop. In the plan for worker training described in Chapter 4, the objective was defined as, "To help workers help each other get jobs using the skills identified as necessary in the changing workplace."

Find the elements in each necessary skill that enables the analyzation of that specific skill into the three generic skill sets. For example, negotiation is a necessary skill that breaks down into:

first skill set—inventing options
second skill set—focusing on interest
third skill set—referencing standards

Develop exercises targeted at getting work in the new workplace using the three generic skill sets so that the exercises incorporate one or more of the SCANS skills.

Sequence the exercises in an intensive two-week period, twenty-four hours each week.

Determine the number of participants.
Determine space and dates for workshops.
Determine staff.
Determine and implement training for staff.
Determine and carry out recruitment strategy.
Determine follow-up and assessment.

Preparation:

All study Chapters 4 and 5.
A designated person prepares a plan.

Objective:

To prepare a workable plan for carrying out the Three Person Solution for the assembled group using Threeing.

Materials:

Tables with three chairs each, enough for the group
Writing materials for everyone
Triadic talking sticks
Copy of plan

Procedures:

Divide the group into recombined teams of three. (Estimated time: 10 minutes)

Planning Exercise #1

Give out copies of the plan to each group. Each group will discuss the plan using the three skill sets.

Yellow, the planner, presents plan.

Red reacts to aspects of the plan he or she does not like.

Blue mediates between the reaction and the plan.

Yellow tries to reformulate the plan in light of blue's mediation.

Use confrontational protocols, if necessary. (Estimated time: 30 minutes)

Change roles. Red becomes yellow. Yellow becomes blue. Blue becomes red.

Yellow offers a revised plan.

Red responds.

Blue mediates.

Use confrontational protocols if necessary.

Blue formulates a set of recommendations for changes. (Estimated time: 20 minutes)

Blue members of each team report their recommendations to the group at large.

Discussion. (Estimated time: 30 minutes)

The designated planner takes the recommendations under consideration and resubmits the revised plan to the group. The group can then provide another round of feedback. This process continues until participants drop the effort or agree on the plan.

Lesson 10: Considering the Yoga of Threeing

In this final verbal lesson for verbal Threeing, the nonverbal yoga of Threeing is considered. Lesson 10 will consist of walking through the yoga of Threeing and discussing the possibility of actually initiating a formal practice. Before doing this lesson, each potential participant should read the following imaginative description of Threeing.

Imagine Threeing:

Imagine doing the practice with two people you know well. Each of these people also know each other well. The three of you are very comfortable with each other. You are all in a quiet, safe space with the Relational Circuit elegantly outlined on the floor. You all know the six unambiguous positions in the circuit well. You all know the choreography. You have performed this practice together before, so you can flow through the form easily. You act without speaking, so awareness of each other's presence intensifies.

After each of you spends some quiet time relaxing and connecting with yourself, you step into the circuit. You attend to both partners simultaneously. Following your instincts for balancing the interplay among you, you move to face one partner. He or she moves to face you. You stand eighteen inches apart and take each other in. When you feel you have taken his or her presence in, you turn to face the other person. Again, each of you takes in the other's presence. The other person then goes and stands face-to-face with the person you turned to first. The two stand facing each other for a time, but they sense your presence and part so as not to exclude you. You expect this and have no discomfort with their being face-to-face for a while.

As one partner moves into the first position, you move into the second position and stand behind him or her. The third partner moves into the third position and stands behind you. You sense some trust from the person in front of you and some caution. You sense the limits of your own comfort zone with the person behind you. The person in front of you starts to move and makes humming sounds. You react without thinking and hold the person in front of you around the waist. Staccato sounds come out of your mouth. You are being held gently by the person behind you; he or she is singing a wordless melody, softly. The humming gets stronger, takes on some melody against your staccato. The humming and movement become a rhythm, which fades into quietness. There is no hurrying. Your sense of each other's bodies and being is very acute, but not possessive. No one is trying to "capture" anyone else. No one is alienated from his or her own presence. You are letting each other be.

The person in front of you changes position. You and the other person also change positions. You all move back into the face-to-face-to-face arrangement,

making strong sounds as you face each other. There is strength, anger, frustration, competition, laughter, and a fullness that makes you stand up straight. Then you begin to feel it is a little false. You don't want to face your partners right now. You move into the first position, the initiator position.

You are quiet for a while, paying complete attention to yourself, and then you start rocking. Sighs come from deep within you. You are barely aware of being held and hearing some other kinds of sounds. Your sighs become images and you let them have their way. You ride a stream of familiar images in a very unfamiliar way. After the images have tumbled to stillness, you stop rocking. You change position and continue to flow with your two partners. After more face-to-face-to-face you move into the mediator role and pay close attention to the sadness in the first role and the anger in the second role. You find a way with movement and sound to let both of them be. All three of you ease your way out of the circuit and sit quietly.

You feel at ease. You feel completeness.

Preparation for the Lesson:

Review the presentation of the yoga of Threeing in Chapter 8.

Outline the Relational Circuit on the floor with masking tape. Configure a circuit with an eight-foot diameter following the instructions and diagrams in Chapter 1.

Outline as many circuits on the floor as there are teams of three.

Objective:

To consider practicing the Yoga of Threeing.

Materials:

Tricolor talking sticks
Ten-foot square floor space for each team of three
Roll of masking tape for each team of three

Procedure:

Recombine in teams of three. Avoid repeating team members. (Estimated time: 5 minutes)

Walking and Talking Exercise # 1:

Each team walks and talks their way through the choreography for Threeing, shown in Part III. Do not perform the sounding exercise of the flying and holding exercise. (Estimated time: 15 minutes)

Silent Walking Exercise #2:

After the team has a sense of the choreography, recombine teams and walk through the same choreography without talking. Simply walk through the choreography. Pause for a full minute in each position. Let each person take in the simple fact of standing behind or in front of someone. Let each person take in the fact of standing face-to-face with someone. When each team has completed the choreography, the team members step out of the circuit and take up the tricolor talking stick. (Estimated time: 15 minutes)

Talking about Walking Exercise #3:

Yellow initiates a conversation about the possibility of the doing the practice with this group. Red reacts to this possibility. Blue mediates. Change roles. Have another round. Change roles. Have another round. Use confrontational protocols if necessary. (Estimated time: 25 minutes)

Have a general discussion about the feasibility of this group engaging in the practice of nonverbal Threeing. Let particular people indicate whether they would opt out or move into the practice. If sufficient numbers are interested, review the protocols for forming a group given above. Review the nonverbal yoga of Threeing and arrange to start. (Estimated time: 30 minutes)

CHAPTER 8

The Nonverbal Yoga of Threeing

I choreographed the flow pattern for Threeing to accommodate characteristics that are common to almost all humans. We have a front and back; we can move and make sounds. The simulated "flying" motion that is part of the practice is based on a reflex common to all infants. If you lift the infant off its back a few inches and let the infant go, it will throw its shoulders back (Moreau Reflex). The practice of "holding" a fellow participant is based on another common pattern called the "startle response." If you make a loud noise, an infant will draw its shoulders together. Given this common core, the unambiguous geometric figure, and the simple choreography of changing roles, participants can "compose" their relationships in movement, gesture, sound, and stillness.

The emotional experience of the nonverbal practice of Threeing is intense and complete. One participant said that, unlike that cartoon where two people pass each other on the street, say "Hello," and then each wonders what the other meant, after Threeing, you have a satisfying emotional clarity about what happened. Another participant said that while Threeing he went back to a recurring dream he had. In the dream, one half of him went down a tunnel and the other half went up some stairs. Never in the dream did they meet. In Threeing, the tunnel and the stairs came back together.

Transitioning In and Out of Threeing

The practice of Threeing creates a habit of relationships that tends to make people open but also vulnerable. Accordingly, people need to move in and out of Threeing in a way that indicates a clear transition, especially with nonverbal Threeing. Without healthy transitions, participants may unconsciously try to interact with non-practitioners using emotional habits learned in Threeing, thereby leav-

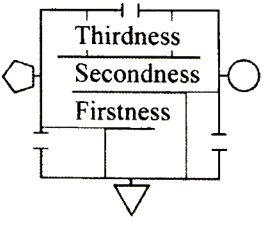
ing themselves open to abuse. Normally, when three people interact, two tend to combine and exclude the third party. As the adage goes "two's company, three's a crowd." Through experience, we all know how to align ourselves and protect ourselves in the course of these "normal" interactions, even if we are not conscious of how we go about it. In Threeing, two-against-one dynamics are precluded; openness to two others takes over. It is this simultaneous openness to two others that will not work in normal, everyday interactions and makes it necessary to establish clear transitions before and after the practice of Threeing.

Before moving into Threeing, sitting quietly or spending some time in an individual meditation will allow participants to ready themselves for opening up. Transitioning out requires participants to transform the shared use of the categories of firstness, secondness, and thirdness to the personal use of those categories. Besides meditation, this transformation can be facilitated by two person conversations among participants about reentering their individual daily lives in terms of relevant feelings (firstness), facts (secondness), and patterns (thirdness).

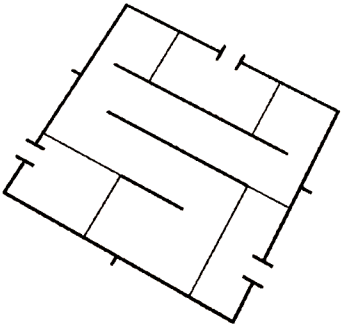
THREEING: Instructions

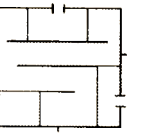
Threeing is performed by three people. Threeing takes place on a circuit outlined on the floor that has six positions. The smallest bold bar within the square is the position of firstness, the middle bar is the position of secondness, and the longest bar is the position of thirdness. These positions have three in-between positions indicated by the sides of the square. The thin lines indicate the continuous path connecting the positions. Performers must follow the continuous path in changing positions. Only one performer is allowed in any position at any time.

Outline the Relational Circuit on the floor. You can make this outline "square," as in the graphics below, or you can configure a circuit with an eight-foot diameter following the graphics in Chapter 1. The arcs or part of the circuit in-between the positions of firstness, secondness, and thirdness should be placed with a gap between them of about a foot. This placement accommodates our bilateral symmetry.



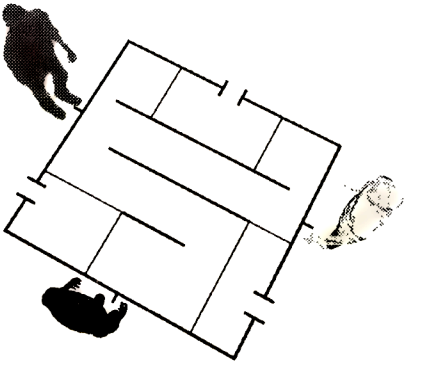
1 THREEING: Relational Circuit

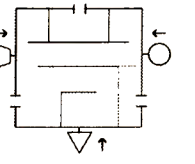




2 THREEING: Preparation

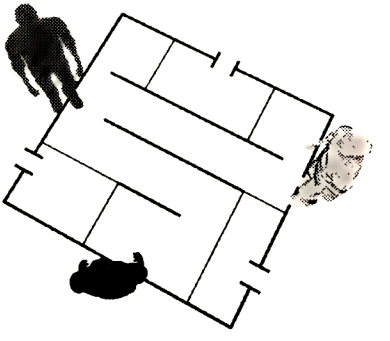
Copy the square figure shown above onto the floor. Make each side seven feet.

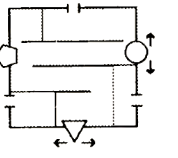




3 Beginning

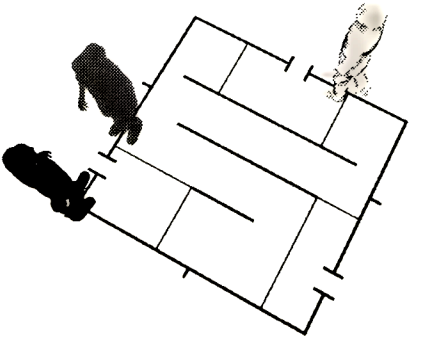
Each performer stands astride an entrance marker. When all three are ready, they nod to each other and enter the circuit.

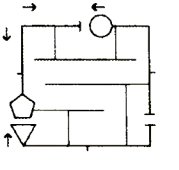




4 Face to Face

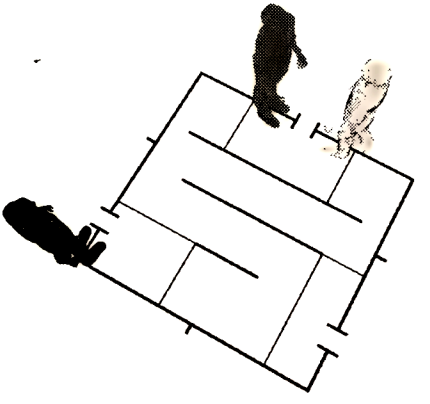
Any performer can start moving back and forth, facing each of the other performers in turn.

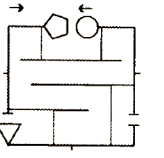




5 Face to Face

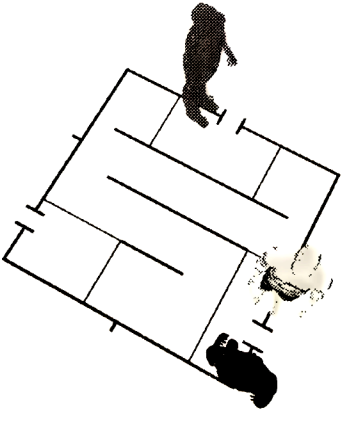
Once a performer starts oscilating, the other performers move up to face the performer who is going back and forth.

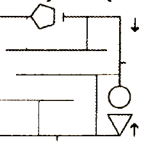




6 Face to Face

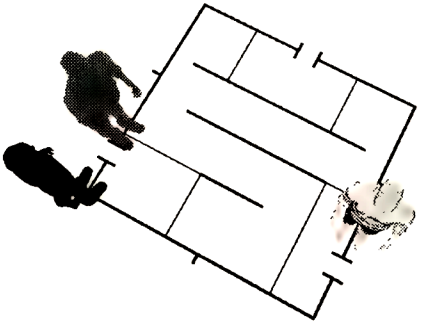
Face to Face is like the game of monkey-in-the-middle without the ball.

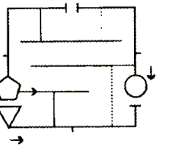




7 Face to Face

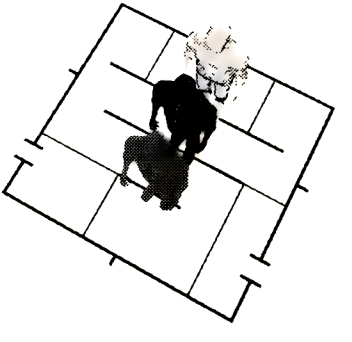
While facing the oscilator, another performer can turn away from the oscilator and become "the monkey in the middle," the performer doing the oscilating.

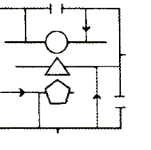




8 Face to Face

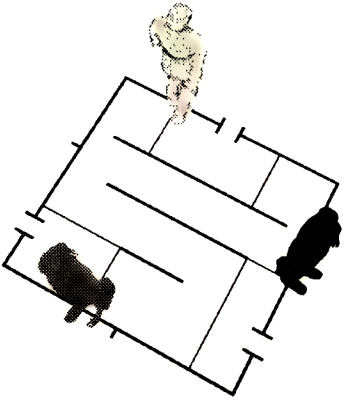
Face to face continues until a performer who is close to the shortest bar chooses to follow the thin line to the short bar.

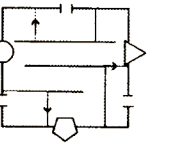




9 Front and Back

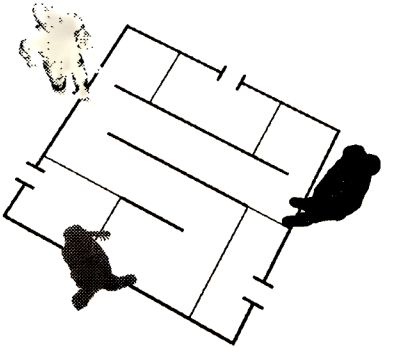
The performer on the shortest bar faces away from the other two bars. The other two performers follow the thin line to their respective bars and face in the same direction.

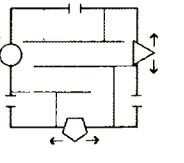




10 Front and Back

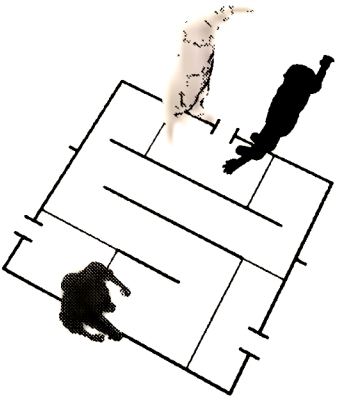
When the performer on the shortest bar is finished, all performers return to a part of the square that is different than the part they were on before going to the bars.

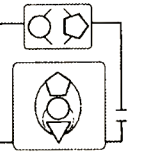




11 Face to Face Again

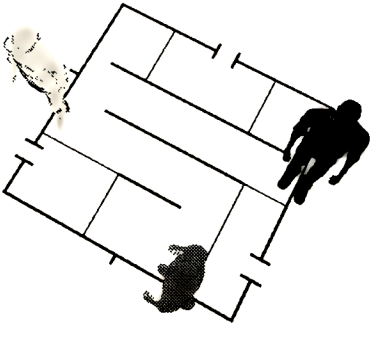
Performers can now oscilate in Face to Face interaction again, until a performer close to the shortest bar chooses to go there and do Front and Back again.

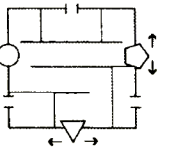




12 Flying and Holding

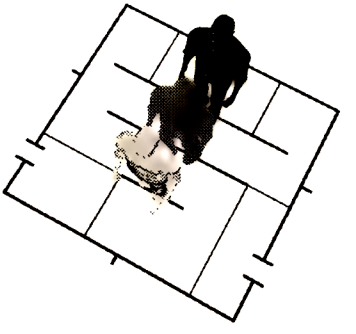
Performers repeat Face to Face and Front and Back. While Face to Face they do a slow flying motion with their arms. While Front and Back they hold the performer in front of them.

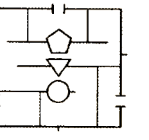




13 Soundings

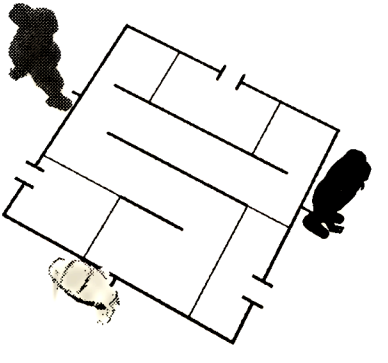
In Soundings, the patterns of Face to Face and Front and Back are repeated with or without Flying and Holding. Face to Face sounds are made that express whatever feelings come up.

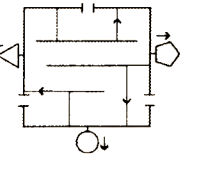




14 Soundings

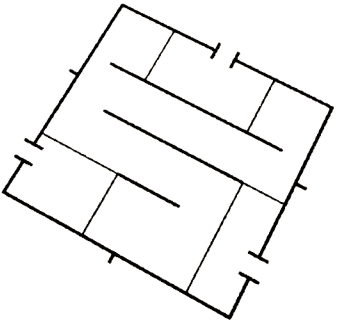
When Sounding in Front and Back, performers make sounds and movements that interpret their relative positions of firstness, secondness, and thirdness.

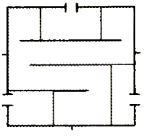




15 Completion

To signal completion, performers go to an entrance point and nod to each other that nobody wants to do more and step out. A minimum round of Threeing provides a turn in firstness for each performer





16 Advanced Threeing

The same rules as above apply with one difference. The movement from the square to the bars and back can be initiated by any performer, not just one going and coming in firstness.

APPENDIX I

The Relational Circuit

The Relational Circuit is the formal figure that makes Threeing possible. If your three person behavior maps onto the six positions in the Relational Circuit, you are Threeing. If not, Threeing is not occurring. The two dimensional diagram and the tricolor talking stick procedures described in Chapter 1 both map onto the three dimensional Relational Circuit presented in this Appendix.

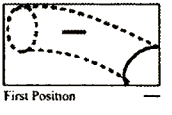
It may well be possible to expand the repertoire of three person behaviors beyond what I have presented in this book. For those working on expanding the repertoire, the Relational Circuit offers formal "guidelines" to the organization of positions necessary for Threeing. If the new behavior maps onto the Relational Circuit, it can be considered Threeing. This appendix seeks to make these guidelines as clear as possible. One can use the guidelines, or schema, of the Relational Circuit as a "figure of regulation" for Threeing.

Besides those interested in expanding the repertoire of face-to-face-to-face Threeing, I intend this Appendix for early adaptors intent on adapting Threeing to the Internet. Such an adaptation requires a more technical discussion of the Relational Circuit than I have presented in Chapters 1-8 of this book. With these needs in mind, I have developed this Appendix on the Relational Circuit. This Appendix has five parts.

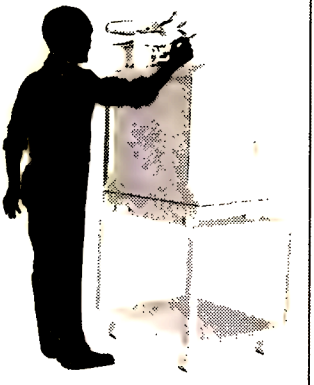
1) Creating the Relational Circuit with Video Replay
2) Observing the Circuit
3) Characterizing the Circuit
4) The Circuit and Bateson's Criteria
5) Evading Godel: Peirce's "Sign of itself"

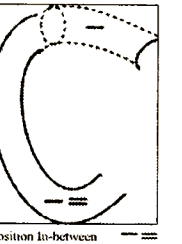
1) Creating the Relational Circuit with Video Replay

This process of video replay creates a continuum of experience that includes your "live" and "live on tape" self. The continuum is mapped by the Relational Circuit.



Creating the Relational Circuit with Video Replay (1)
Do whatever you want to do in front of the camera and record it. This creates a first position, that is to say, a position in the circuit that will be contained by two other positions.



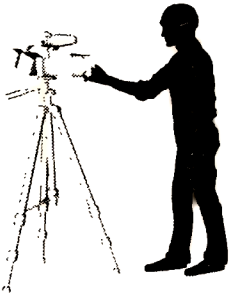


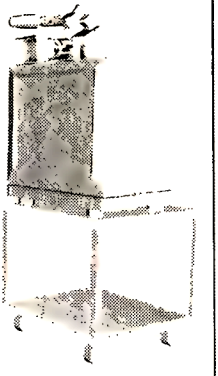
Position In-between
Firstness and
Secondness

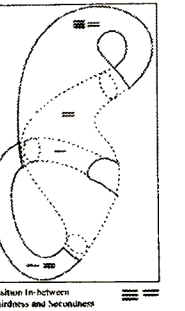
Creating the Relational Circuit with Video Replay (2)
Rewind the tape. This creates a position in-between the first and second position, that is to say, a position in the circuit that will be uncontained.

Second Position

Creating the Relational Circuit with Video Replay (3)
Replay the first tape. React directly to what you see playing back on the TV screen and record your reactions with a second camera. This creates a second position in the circuit, that is to say a position that contains the first position.

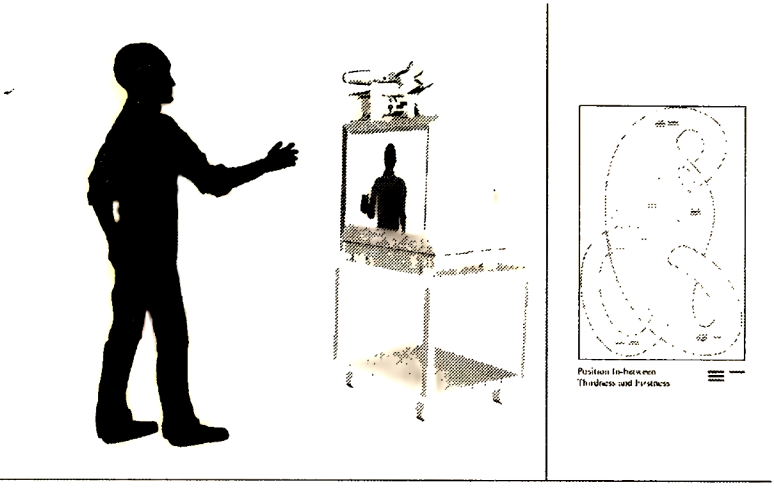




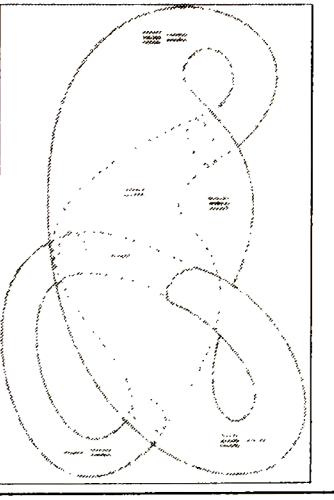


Creating the Relational Circuit with Video Replay (4)
Take tape number one out of the camcorder on the TV. Take tape number two out of the camcorder on the tripod. Place tape number 2 into the camcorder on top of the TV. Put tape number 3 into the camcorder on the tripod. This unrecorded activity creates another position uncontained in the circuit.

Creating the Relational Circuit with Video Replay (5)
Replay the tape on the camcorder on top of the TV. Comment on the relationships between your spontaneous self and your reactive self. This commentary creates a position in the circuit (third position) that contains two other positions (second position and first position).



Creating the Relational Circuit with Video Replay (6)
Start over again by going back to the position of firstness. This creates a new position uncontained, a position in-between the third position and the first position.



The Relational Circuit
Figures 1.2, 1.3, and 1.4 on pp. 12-14 and Figure 1 on p. 112 are all derived from the above diagram.

2) Observing the Circuit

Asking the reader of this Appendix to create the Relational Circuit with video feedback—or at least imagining doing so—is an effort to avoid a misperception of the Relational Circuit. When the circuit is presented in two dimensional drawings on paper surfaces, the circuit itself can be misperceived as merely about surfaces. This misperception of the Relational Circuit is a result of the disjunction between what I call "surfaceland" and "circuitland," reminiscent of Edwin Abbott's disjunction between "flatland" and "spaceland" (Abbott 1952).

To see the Relational Circuit only in terms of surfaces is to allow your perceptions to be constrained by "surface topology." Surfaceland, extensively mapped by surface topology, is constituted in the detached world of perspective space. Things are seen from a fixed, unmoving point. By contrast, the Relational Circuit is part of a circuitland that invites participatory perception from rotating positions. Recreating the Relational Circuit with the video exercise above, or performing Threeing, involves recursive participatory perception.

Following the mathematician Bernhard Riemann, as I understand him from reading Peirce scholarship, I think of topology as the study of relations of position and inclusion independent of measurement (Murphey 1961: 194-237). My understanding of topology is pre-axiomatic, based as much on my experience as an artist as on my reading. "Position" I take to mean a place or locus relative to other places or loci. "Inclusion" I take to mean containing in some sense. I think of the Relational Circuit, not as a surface on which to map positions, but as a tube that forms positions. What I would call "tubular topology" designates position in terms of the empty space within tubes, not in terms of surfaces. Hence the designations—"part contained", "part containing," and "part uncontained"—are used in creating the Relational Circuit described above. Each phrase designates a different position in a tube relative to other positions. Formulating this threefold differentiation freed me from the constraints of surface topology and habits of orientation. (See above Figures 3, 4, and 5 in the Appendix for examples of topological figures built from a tube. Also, see Ryan 1971, 1974, 1993.)

In 1971, I published my first iteration of topological figures built from a tube (*Radical Software* 1971, Vol. 1, #3, pp. 1-2). These figures arose out of three years of experimentation with video feedback. My experience with video feedback mapped onto a Moebius strip, not onto a mirror (see above, Ryan 1993: 36-42, Bateson 1979: 82-86). If you simulate shaking hands with yourself in a mirror, it will not work. The mirror will return a left hand to your right hand. If you face a video camera placed on top of a monitor and simulate a handshake, it will work. The monitor will return a right hand to your right hand. This was a critical distinction for me. Throughout the process of building the Relational Circuit, I held to this Moebius perception of myself. Since a Moebius strip with sides

is called a Klein bottle, and I wanted to designate the tubes in terms of their debt to the Moebius strip and Klein bottle. At first I called the tubes "Klein worms" and then "Klein forms." Please note, however, the critical contrast. In traditional surface topology, mathematicians see the Klein bottle as a surface with sides (more surfaces), while in tubular topology, I see the Klein bottle as having a part contained, a part containing, and a part uncontained.

I sent the six graphics of Klein forms in *Radical Software* to the topologist, Rene Thom (Ryan 1971). While I am not sure where the letter is, Thom wrote back saying that he did not really understand what I was doing but that what I had sent him seemed "highly original." With this encouragement, I went on to expand the series of Klein forms until I arrived at the Relational Circuit (Ryan 1974, 1993). Other ingredients in the creative cauldron at the time included McLuhan's probing of media, Bateson's definition of information as a difference that makes a difference, Peirce's three categories, McCulloch's paper on heterarchy (McCulloch 1965: 40-45), video experimentation with three person relationships (Ryan 1985), holography experiments, and the topologically rich paintings of French-American artist, Claude Ponsot.

Klein bottles belong to surfaceland. Klein forms do not. In the surface topology that traditionally describes Klein bottles, the surface is not permitted to pass through itself. (The penetration where the neck of the bottle goes through the side is seen as an exception called a "cross cap.") In tubular topology, this rule does not hold. Klein forms are not Klein bottles. In Klein forms, at least as I invented and named them (Ryan 1971, 1974, 1993), self-penetration is permitted. It is this self-penetration that enables Klein forms to map the duration of time that occurs in the process of video feedback, the process that led to formulating the Klein forms. The continuity within the chambers of the tube is being rendered, not the connectivity possible on the surface of the tube.

In surface topology, an "orientable" surface is one having an inside and an outside. For example, the non-orientable surface of the Moebius strip has neither inside nor outside. This definition of orientation is particularized for surface topology. In surface topology, this description of orientable as having an inside and outside is accurate enough, but in tubular topology, it is misleading. In my understanding, the more general definition of orientation deals with directionality. Orientation means assigned direction. In the Relational Circuit, the six positions relate to each other without any need to assign direction, that is, no up or down, left or right, front or back.

In the genesis of the Relational Circuit I went from the Moebius strip to the Klein bottle to the Klein forms to the Relational Circuit (Ryan 1993: pp 104 ff). This genesis involved what, in the art world, would be called a "creative misinterpretation" of surface topology, specifically of the Klein bottle. Re-examining the Relational Circuit using the rigors of surface topology does seem worthwhile.

It seems possible to "reverse engineer" a Relational Circuit by slicing through a simple torus (a commonplace of surface topology), thus creating a tube, having that tube self penetrate six times in the manner of the Relational Circuit, and then fusing the ends of the tube together at the original slice. Re-constructing the Relational Circuit in this way could yield new insights. In surface topology, it is permissible to "temporarily" cut a shape as long as the cut is reconnected. In effect, my threefold differentiation of positions in the Klein bottle into part contained, part containing and part uncontained allowed me to work in that "temporary" zone for years and develop the open Klein forms. Open Klein forms, while they have threefold differentiation of parts contained, containing, and uncontained, also require some orientation, that is, you must assign which end to start with. My eventual closing of the tube in the shape of the non-orientable Relational Circuit would, in surface topology, amount to a reconnecting of a self-penetrating torus at the "cut." I don't think the possibility of a re-construction of the Relational Circuit from a torus subsumes the Relational Circuit under the category of torus. A simple torus is not a circuit. It cannot satisfy the criteria for a circuit set out in cybernetic theory. There is no transform in which more of something means less of something else (Ryan 1980, Bateson below). Indeed, a torus only qualifies as a metaphor for a circuit. By contrast, the Relational Circuit forms a genuine circuit, not an evading metaphor.

One very useful reference for comparing the torus with the Relational Circuit is Warren McCulloch's classic paper, "A Heterarchy of Values Determined by the Topology of Nervous Nets" (1965: 40-45). As described below, the Relational Circuit constitutes a heterarchic array of unambiguous intransitive positions, which the simple torus does not. McCulloch, however, mapped an intransitive heterarchy of values onto a torus. In McCulloch's paper, the distinction between map and territory is maintained. The map is not the territory. The territory is a torus. The map is a network of lines on the torus that connect in a pattern of intransitive preference. The map is a circuit. The torus is a surface.

By contrast, the Relational Circuit is a Sign of itself in which the map and the territory are not distinct, not discontinuous. What I believe I've done is forgo the distinction between map and territory and map the map into itself. To quote Peirce:

> On a map of an island laid down upon the soil of that island there must, under all ordinary circumstances, be some position, some point, marked or not, that represents *qua* place on the map the very same point *qua* place on the island... we shall, or should, ultimately reach a Sign of itself...
>
> (Peirce 1931-35: 2.230)

To adhere to the "*qua* place," I stayed within the continuity inside the tube rather that drawing lines on the surface of a torus. Mapping requires differences

to map. The question then becomes how can you have difference without discontinuity (*Metalogue: Gregory Bateson, Paul Ryan* in Ryan 1993: 174-196)? How can you stay within continuity and generate differences?

Using video feedback to build the Relational Circuit, as set forth above, offers one way to answer this question. The tube indicates the continuity of the experience, yet just as the one experience has different "parts," the one tube has different parts, each containing a different position. Another way to answer this question about differences without discontinuity is by analogy. Within churches we often find two bays or chambers on either side of an arch. The space between is called an archway, that is, the way under the arch. The arch does not frame a set of doors but marks a passageway from one chamber to another. Passing from one chamber to another involves crossing the threshold under the arch. The empty space of the passageway (negative space in artistic terms) constitutes continuity between the empty space in the two chambers. Yet the threshold also marks a difference in the continuity, inflects the continuum, without creating an actual discontinuity. So with the Klein forms and the Relational Circuit. The chambers in the tubes are continuous in their negative empty space; however, the thresholds created by the self-penetration differentiate each chamber from the others.

The process of understanding proper to this way of differentiation is what Peirce calls "prescinding." Literally, it means "before the cut," that is, before difference is established by distinguishing. You can pay attention to the space on one "side" of the arch without cutting yourself off from the other "side."

This process of differentiation without discontinuity takes place as your mind moves within the Relational Circuit. The Relational Circuit has six positions that differentiate themselves so you can pay attention to some without paying attention to others. For example, in secondness, you pay attention to firstness and secondness without paying attention to thirdness. When you take your attention to thirdness, you include firstness and secondness.

3) Characterizing the Circuit

Hopefully, the above discussion of the difference between surfaceland and circuitland will make it easier for the reader to see the Relational Circuit in terms of itself. Seeing something in terms of itself is a process which Peirce calls "abstractive observation" (Peirce 1931-35: 2.231). Using the process of abstractive observation, eighteen characteristics can be attributed to the Relational Circuit. I believe these eighteen characteristics are invariant, that is to say, they do not change. As long as you have the Relational Circuit, you have these eighteen characteristics. It is this invariance that makes the Relational Circuit a reliable figure for stabilizing three person relationships.

1. One
There is but a single circuit.

2. Empty
The circuit is empty. The emptiness itself constitutes the circuit.

3. Continuous
The circuit is a continuum. It is possible to move from within any part of the circuit to any other part without crossing a boundary.

4. Bounded
The circuit is bounded. The boundary limits the continuum.

5. Infinite
The continuum of the circuit is infinite. The continuum returns to itself without end.

6. Six-Part
The circuit penetrates itself six times. This self-penetration yields six different positions on the continuum. Each position is part of the continuum.

7. Positional
The differentiation in the circuit is structured according to differentiation of position on a continuum. In contrast to any statement of description, differentiation in the circuit does not correspond to the differentiation implicit in the subject/predicate structure of propositions. Hence, the circuit cannot be fully explained in any axiomatic system of propositions. The circuit is positional, not propositional.

8. Unambiguous
The six positions are unambiguous. There is but one position of firstness, but one position of secondness, and but one position of thirdness. For refined observation, thirdness can be described as the position surrounding secondness in which a stiff torus can be trapped. All the other positions are differentiated by the passage of the continuum through the thresholds created by the self-penetration. There is only one position on the continuum between firstness and secondness, only one position on the continuum between secondness and thirdness, and only one position on the continuum between thirdness and firstness. The naming of these positions is not arbitrary but follows Peirce's definitions of firstness, secondness, and thirdness (Peirce 1955). Firstness is a compact, empty position, free of any other. Secondness has another part of the circuit passing through it, which indi-

cates something it is up against, the position of firstness. Thirdness contains both secondness and firstness.

9. Non-Identical

No position in the circuit is identical with any other position. No two positions can be equated.

10. Non-Orientable

Assigned direction makes no difference in determining the relative positions in the circuit. This can be understood by contrasting non-orientation with the orientation involved in reading. As a reader, your eyes are moving from left to right, down the page of print that is in front of you. If you turn 180 degrees, what was in front of you is now behind you, what was on your left is now on your right. In this conventional understanding of position, if you change your orientation, you change your referencing system for position. In the circuit, changes in orientation make no difference in determining relative positions. The circuit has no center, no front and back, no left and right, and no up and down. The six-part differentiation of position holds regardless of orientation.

11. Intransitive

It is possible to understand each position in the continuum without going outside the bounds of the continuum. Each position, in turn, is explained by two other positions. The position of firstness is the position contained by secondness and thirdness. The position of secondness is contained by thirdness and contains firstness. Thirdness contains both secondness and firstness. Each of the "in between" positions on the handles is explained by reference to two of the three positions of firstness, secondness, and thirdness.

12. Complete

The circuit is complete. The term "complete" is used here in two senses.

a) Nothing outside the circuit is required to make it whole. By contrast, the series of natural numbers is always incomplete. One can always move toward completion by adding another number. Indeed, the sequence of natural numbers can be embedded in this six-part continuum in sets of six with remainders ad infinitum.

b) Nothing outside the circuit is required to understand its wholeness. The circuit consists of an empty continuum of six positions. Each position is explained in terms of the other positions in an intransitive way. The circuit has all the parts necessary to explain itself. No meta-level of explanation is required.

13. Consistent

The circuit is one continuum with six positions. There is no position which is also not a position. There is no position which is simultaneously another position, as in the case when two people face each other and what is on one person's right side is simultaneously on the other person's left side. Although secondness simultaneously contains and is contained, the reference for each relationship is unambiguous. The circuit is internally consistent.

14. Relative

The circuit is absolutely relative. The six positions are completely determined by each other. To move from one position to another position is to change relationship to every other position. A difference in position makes a difference in relationship.

15. Non-Sequential

While it is possible to move sequentially through all six positions, the positions themselves do not depend on sequence for their identity. The positions of firstness (F), secondness (S), and thirdness (T) are indifferent to sequence. You can outline the circuit on the floor and move through the continuum in any of the following sequences without altering the positions themselves: (for simplicity of explanation, I am omitting the in-between positions) FST, TSF, STF, SFT, TFS, and FTS. In the last example, FTS, what is indicated is that you can go from firstness to thirdness without passing through secondness. Firstness and thirdness are contiguous without reference to secondness. Relative position is detached from sequence.

16. Irreducible

The circuit cannot be reduced and maintain its characteristics. For example, the only possible reduction of the figure that remains bounded would be a four-part circuit with one part containing another part and two parts uncontained or two "handles." However, in such a reduction, the two parts uncontained could not be distinguished from one another without going outside the circuit and referencing the left and right hand side of the viewer. Such outside referencing would violate the non-orientable characteristic of the circuit.

17. Non-Compact

The figure cannot be reduced to a ball and retain its identifying characteristics. Like the "hole" is integral to the identity of the torus, the three "holes in the handles" are integral to the identity of this circuit.

18. Heterarchic

Choices between positions within the circuit operate according to intransitive preference. That is to say, choices are not constrained by a hierarchy but can operate heterarchically. If I outline the circuit on the floor and stand in the position of firstness, I can move through an "in-between" position (— =) to the position of secondness (=). But once in secondness I am not compelled to move to thirdness, as if there was a fixed hierarchy of preference or choice. I can return to firstness (-). Any position in the circuit allows this pattern of intransitive preference. There are always two choices, and no choice compels an irreversible sequence of hierarchic choice.

4) The Circuit and Bateson's Criteria

For me, the critical criteria is not whether the Relational Circuit can or cannot be classified as a torus in terms of surface topology but rather whether the Relational Circuit can be classified as a circuit in terms of cybernetics. I believe it can, whereas, as I have said, a torus cannot. Here is a description of how the Relational Circuit satisfies the six criteria for a circuit articulated by Gregory Bateson (1979: pp. 89 ff). Bateson regarded any entity that satisfied these criteria as a "unit of mind." His criteria appear below in italics. Descriptions of how the Relational Circuit satisfies his six criteria appear with each criterion.

i) A mind is an aggregate of interacting parts or components.

The circuit has six parts or components.

ii) The interaction between parts is triggered by difference.

The circuit is relative. A difference in position makes a difference in relationship. Any interaction between parts takes place in terms of these positional differences. Hence, interaction between parts is triggered by difference.

iii) Mental process requires collateral energy.

The circuit is empty. The circuit can be likened to a six part zero. It is empty of energy. Processing of differences in the circuit requires collateral energy.

iv) Mental processes require circular (or more complex) chains of determination.

The circuit is a continuum. The continuum is a circular chain determining unambiguous differences.

v) In mental process, the effects of differences are to be regarded as transformations (i.e., coded versions) of the difference which preceded them.

Each difference in position is, in effect, a transform from the preceding position or positions. If we map Peirce's semiotic understanding onto the positions in the Relational Circuit, we get the following: the sign maps onto firstness, the object onto secondness, and the interpretant onto thirdness. Differences in the object make differences in the sign, which in turn make differences in the interpretant, which in turn make differences in how the interpretant relates to the object. Each difference in position is, in effect, an opportunity to transform the preceding position.

vi) The description and classification of these processes of transformation disclose a hierarchy of logical types immanent in the phenomena.

While the heterarchic circuit (see above #18) itself cannot be subsumed by a hierarchy, transformations in the Relational Circuit can be described so as to disclose a logical typing immanent in the circuit. Firstness is at a "lower level" of logical typing than secondness. Secondness is at a "lower level" than thirdness. Moving from level to level is a transformation of relationships.

5) Evading Godel: Peirce's "Sign of itself"

As the quote above indicates, the phrase a "Sign of itself" comes from Charles Peirce. Here is an expanded version of the passage quoted above.

> But in order that anything should be a Sign it must 'represent' as we say, something else called its Object, although the condition that a sign must be other than its Object is perhaps arbitrary, since, if we insist upon it we must at least make an exception in the case of a Sign that is part of a Sign. Thus nothing prevents an actor who acts a character in an historical drama from carrying as a theatrical 'property' the very relic that that article is supposed merely to represent, such as the crucifix that Bulwer's Richelieu holds up with such an effort in his defiance. On a map of an island laid down upon the soil of that island there must, under all ordinary circumstances, be some position, some point, marked or not, that represents *qua* place on the map the very same point *qua* place on the island . . . we shall, or should, ultimately reach *a Sign of itself* [my emphasis], containing its own explanation and those of all its significant parts: and according to this explanation each such part has some other part as its Object (Peirce 1931—35: 2.230).

I reason that the Relational Circuit is a "Sign of itself" that satisfies the intent of the above statement made by Peirce. My argument has two parts. The first

part discusses the circuit in relation to Gödel's proof. The second part discusses the circuit in relation to the text quoted from Peirce.

A. Consideration of Gödel's proof

Many mathematicians working to construct a complete and consistent logical system, a Sign of itself, were discouraged by the publication of Gödel's proof (Gödel 1962). Gödel proved that it is impossible to create a complete and consistent set of axioms. The Relational Circuit avoids being subsumed in the domain of Gödel's proof in two ways. a) The form is positional, not propositional. b) The Relational Circuit is topological, not arithmetic. Each way will be discussed in turn.

I) The form is positional, not propositional (Characteristic 7, ii above).

Peirce did develop the categories of firstness, secondness, and thirdness in part from a study of the syllogism. Firstness corresponds to the term, secondness to the proposition, and thirdness to the illative "if ...then." But firstness, secondness, and thirdness are categorically more general than the structure of the syllogism. Hence, it is possible to move from these general categories back to the structure of the syllogism and derive a conclusion that way.

However, this is derivative from the circuit itself. You must first derive the structure of the syllogism and then derive the conclusion. If you stay within the intransitive, heterarchic, Relational Circuit itself, you cannot reason through the Relational Circuit and arrive at a logical conclusion. As a non-propositional form, the Relational Circuit is also formally inconclusive. There is no way to preserve the necessary relationships of position in the circuit and simultaneously draw a necessary conclusion from the circuit. In my opinion, Peirce's definition of mathematics as the science of drawing necessary *conclusions*, rather than seeing math as drawing necessary *relations*, was a factor in his failure to develop a "Sign of itself."

Because there is no way to derive a conclusion from the circuit itself, this condition precludes the generation of an excludable contradictory proposition. If I understand it correctly, Gödel's proof exploits the possibility of generating an excludable contradictory proposition from an axiomatic system. If you decide not to generate the excludable proposition, the system is incomplete. If you decide to generate the contradictory proposition, the system is inconsistent. Therefore, any axiomatic system has inherent undecidability. It will either be incomplete or inconsistent. By contrast, the Relational Circuit is a system that is both complete and consistent (Characteristics 12 and 13, ii above).

Because the Relational Circuit is formally inconclusive, it does not mean that it cannot be used as a figure of regulation for making decisions. The circuit does not suspend you in perpetual undecidability. The brute facts of life do call for decisions. As the reader knows, I have developed a procedure for decision making by consensus based on the circuit. The procedure, detailed on pages 29-30 and 93-94, is an extension of the practice of Threeing. Decisions develop from the dynamics of formalized relationships, not from syllogistic reasoning to conclusions. Of course, the formal relationships can, and should, include reasoned arguments.

II) The form is topological, not arithmetic.

Gödel's proof makes it clear that constructing a "Sign of itself" from arithmetic units is impossible. The Sign of itself presented here is not arithmetic, but topological. Topology is understood in the sense given the term by Riemann before the field was subsumed by algebra and set theory. For Riemann, topological study considered only relations of position and inclusion in continuous magnitudes. He explicitly excluded measurement. Subsequently, Peirce explicitly excluded magnitude.

While Peirce was able to free continuity from attributes of magnitude, he was not able to free the continuum from attributes of sequence. I see this as a major reason for his failure to arrive at a relational logic. As Murphey reports, Peirce burdened the ordinal numbers with both expressing relative position and exemplifying position (Murphey 1961: 284). This cannot be done without confusion. As long as the ordinals are arranged in a sequence of first, second, third, fourth, fifth, and so on, there is no clear way to distinguish between each member of the series and the serial relationship. A confusing duality between relations of position and examples of position results. Placing firstness as an example in a position expressed as secondness is more confusing than the Abbott and Costello comedy routine "Who's On First?"

Sequential positioning is a consequence of orientation, that is, assigned direction. The form presented above is non-orientable (Characteristic 10, ii above); hence it is also non-sequential (Characteristic 13, ii above). The confusing duality of position and example in the use of ordinal numbers is resolved. There is no need to hold a double sequence in mind. Examples can be sequenced through an empty continuum of "ordinal" positions that do not depend on sequence. The positions obtain without orientation, hence without sequence. Once the mind is freed to think positionally without orientation, a logic of relationships naturally ensues.

In concluding this section on Gödel, I note that the logic of relationships inherent in the circuit is robust enough to generate a rich semiosis. Elsewhere I

have designed an environmental television channel semiotically. This television channel makes use of Peirce's entire sixty-six-fold sign classification system by mapping the semiotic system into the Relational Circuit (Ryan 1993: 217-221). As a formal system, the Relational Circuit can combine cybernetics and semiotics. This is nontrivial, albeit non-axiomatic.

B. Consideration of Peirce's text

The Relational Circuit will now be discussed in relation to the text quoted above that calls for a "Sign of itself." Of course, presenting argumentation in terms of one abbreviated text only begins the discussion of how the Relational Circuit relates to the body of Peirce's work. Indeed, by omitting the section of the text that I left out in the quote, I am omitting discussion of the realm of signs that are other than their object. This does not invalidate my basic argument. As demonstrated in the design of the ecochannel cited above, signs that are other than their objects can be mapped into this "Sign of itself."

In the selected text, Peirce makes three points about a "Sign of itself." These three points will be reiterated with a discussion of how the Relational Circuit satisfies each point.

1) A sign need not be other than its object; a sign can be part of a sign.

The Relational Circuit is one continuum. There is not an "other" object. All signing is part with this continuum. The phrase "part with" rather than "part of" is more appropriate for the intransitive character of the continuum. This sign does not designate something else. This sign shows itself.

2) The "Sign of itself" will contain the explanation of all its significant parts. According to this explanation, each significant part will have some other significant part as its object.

Two characteristics of the Relational Circuit, unambiguousness (Characteristic 8, ii above) and intransitivity (Characteristic 11, ii, above), insure this part to part explanation. The way Peirce words his statement seems to require that each part have but one other part as its explanation. In the intransitivity of explanation that obtains in the circuit, explanation does not take place in a one-to-one correspondence. Explaining position in this continuum requires that each explained position has not one, but two other parts to explain it. Any one-part explanation would fall back on sequence, for example, this part is the one that follows that part. Insisting on any one-to-one correspondence for explanation leads right back to the impossibility of working with arithmetic units. I do not think this two-part explanation invalidates the Relational Circuit as a "Sign of itself," regardless of

Peirce's text, since the intransitivity of explanation remains complete and consistent.

It can also be argued that this "parts to part" explanation of positions, in terms of the intransitivity and unambiguousness of the form is the only possible way to explain the positions qua positions. No other explanation of the relations of position and inclusion within the form appears possible. All other efforts reduce to the absurd. This argument is perhaps the weakest argument for taking the Relational Circuit as a "Sign of itself." Someone other than me may be able to successfully imagine and argue another explanation of position. At the same time, it seems the *reductio ad absurdum* argument must be made in order to invite proper criticism.

3) Peirce also states that the "Sign of itself" should contain its own explanation. I interpret this phrase, "contain its own explanation," to refer, not to parts explaining other parts, but to the Sign as a whole explaining itself as a whole.

Because the circuit has no more than six parts, it can contain its own explanation. Six is perceptible without counting (McCulloch 1965: 7). The whole form stays within this perceptible limit of six. Differences can be understood without arithmetic units. The perceiving mind can grasp this self differentiating form as a whole, without adding parts to parts. All that need be grasped are the six positions qua positions. To grasp the positions is to grasp the relations of position. The positions constitute the relations. To grasp the relations of position is to contain "its own explanation." All the form is is relations of position. If you grasp the relations of position, you have grasped the form itself.

In the Stoic term used by Warren McCulloch, I am describing a "lekton," an event in the mind like a fist in the hand (McCulloch 1965: 390-395). A fist holds all fingers. To grasp the form of the Relational Circuit is to hold all six positions. If the form becomes an event in your mind, you prehend all the relations of position needed for explanation. You prehend the explanation of the form itself, as a whole. In Peirce's terms, prehension of the circuit is firstness of thirdness. It is iconic of the whole.

APPENDIX II

The Performance Profile

The time required to take this questionnaire is about thirty minutes. As you may want to ask others to take this questionnaire, it is recommended that you make copies before you mark the pages or record your responses on a blank piece of paper. This questionnaire profiles how you use the three skill sets proper to the Three Person Solution. There are no right or wrong answers. No one skill set is given greater value than another. There are, instead, judgments you are making about your abilities that draw a picture of your basic skills. Be as honest as you can. If you are not sure, make your best guess.

Please note that you will be asked to make three choices related to the same theme. The theme is stated as a question, and then you have three choices to make between an option marked "a" and an option marked "b." Circle the number and letter to the left of your choice. What is unusual about this questionnaire is that each option is repeated twice within the three choices that share the same theme. Here is an example:

Sample Question: What motto would you choose for your softball team?

100a Fight for Victory	or	(100b) Play Smart
101a Play Smart	or	(101b) Enjoy the Game
(102a) Enjoy the Game	or	102b Fight for Victory

(Circle the options as indicated below)

Each of the three options: "Fight for Victory," "Play Smart," and "Enjoy the Game" is repeated twice. In the sample, we chose 100b "Play Smart" over 100a

"Fight for Victory," 101b "Enjoy the Game" over 101a "Play Smart," and 102a "Enjoy the Game" over 102b "Fight for Victory."

Because this format is unusual, it may take a little getting used to. You may find that you are more comfortable reading the whole group of options before you make any choices. On the other hand, you may feel more comfortable making your choice as the options appear. However you decide to work, all questions must be answered for the profile to be as useful as possible. You will never be asked to repeat a choice between the same two options. Try answering this sample question for yourself.

What motto would you choose for your softball team?

100a Fight for Victory	or	100b Play Smart
101a Play Smart	or	101b Enjoy the Game
102a Enjoy the Game	or	102b Fight for Victory

Now try to provide answers for a second sample.

As a motto for your life, what would you choose?

103a go with the flow	or	103b fight for what you want
104a fight for what you want	or	104b learn from tradition
105a learn from tradition	or	105b go with the flow

Please begin the questionnaire.

As a detective, would you be better at:

1a finding evidence of the crime	or	1b figuring out who is guilty
2a reading a suspect's mood	or	2b finding evidence of the crime
3a figuring out who is guilty	or	3b reading a suspect's mood

You are on a team taking over a company that prepares artistic gift baskets for corporate clients. Do you think you will be better at:

4a taking care of the books	or	4b customer relations
5a customer relations	or	5b preparing the baskets
6a preparing the baskets	or	6b taking care of the books

Your team is dividing up tasks. Do you think you would be better at:

7a analyzing a problem	or	7b imagining a creative solution
8a imagining a creative solution	or	8b applying a creative solution
9a applying a creative solution	or	9b analyzing a problem

In negotiations that you take part in, are you better at:

10a inventing options	or	10b focusing of interests
11a using objective standards	or	11b inventing options
12a focusing on people's interests	or	12b using objective standards

Are you better at:

13a institutionalizing change	or	13b initiating change
14a initiating change	or	14b resisting change
15a resisting change	or	15b institutionalizing change

Do you consider yourself better at:

16a discussing facts	or	16b discussing overall patterns
17a discussing possibilities	or	17b discussing facts
18a discussing patterns	or	18b discussing possibilities

In conversation, do you think you are better at:

19a initiating a discussion	or	19b playing devil's advocate
20a playing devil's advocate	or	20b mediating a discussion
21a mediating a discussion	or	21b initiating a discussion

If you were asked to resolve a conflict where both sides seemed near right and were of equal strength, would your best effort be to:

22a flip a coin	or	22b suggest arm wrestling
23a suggest arm wrestling	or	23b reason about the conflict
24a reason about the conflict	or	24b flip a coin

Your amateur theater group is casting the Marx Brothers. Would you give a better performance as:

25a the reasonable Groucho	or	25b the emotional Harpo
26a the troublemaker Chico	or	26b the reasonable Groucho
27a the emotional Harpo	or	27b the troublemaker Chico

In an amateur theater company, do you think you would be better:

28a doing the lighting	or	28b directing
29a acting	or	29b doing the lighting
30a directing	or	30b acting

Do you think you could write a better story about:

31a the past	or	31b the future
32a the future	or	32b the present
33a the present	or	33b the past

As a camp counselor for young children, would you be better at:

34a playing with the children	or	34b disciplining the children
35a organizing the activities	or	35b playing with the children
36a disciplining the children	or	36b organizing the activities

In helping a friend move into a new apartment, would you be better at:

37a moving the furniture in	or	37b arranging the furniture
38a picking colors for painting	or	38b moving the furniture in
39a arranging the furniture	or	39b picking colors for painting .

If you were a movie critic, do you think you would do a better job analyzing:

40a close-ups of faces	or	40b the action sequences
41a the action sequences	or	41b the overall plot
42a the overall plot	or	42b close-ups of faces

You have just been in a minor auto accident. Nobody is hurt. Do you think you would be more articulate about:

43a the facts of the accident	or	43b who was at fault
44a who was at fault	or	44b your feelings
45a your feelings	or	45b the facts of the accident

If you could live forever, which role do you think you would perform better?

46a a child	or	46b a parent
47a a parent	or	47b a grandparent
48a a grandparent	or	48b a child

KEY to Scoring: Circle the answers you gave in the lists below.

1st Skill Set	2nd Skill Set	3rd Skill Set
	1a	1b
2a	2b	
3b		3a
	4a	4b
5b		5a
6a	6b	
7b	7a	
8a		8b
	9b	9a
10a	10b	
11b		11a
	12a	12b
13b		13a
14a	14b	
	15a	15b
	16a	16b
17a	17b	
18b		18a
19a	19b	
	20a	20b
21b		21a
22a	22b	
	23a	23b
24b		24a
25b		25a
	26a	26b
27a	27b	
	28a	28b
29a	29b	
30b		30a
	31a	31b
32b		32a
33a	33b	
34a	34b	
35b		35a
	36a	36b
	37a	37b
38a	38b	

39b		39a
40a	40b	
	41a	41b
42b		42a
	43a	43b
44b		44a
45a	45b	
46a	46b	
	47a	47b
48b		48a

Add up the number of circles in each skill set.

1st Skill Set Multiply by 2 _____
2nd Skill Set Multiple by 2 _____
3rd Skill Set Multiply by 2 _____

Record the skill set totals as percentages below.

1st Set _____% 2nd Set _____% 3rd Set _____%

In this profile no one set of skills can have more than sixty-four percent. Notice that the total percentage adds up to ninety-six percent, not one hundred percent. You can add the remaining four percent to the set you think most appropriate after reading the following interpretation of the three different generic skill sets.

Interpretation

Your self-assessment shows that you have developed a certain ratio among three very generic relational skill sets. Most likely, you will score highest in one of the three skill areas. Let us look at what it means to score high in any one of these skill sets.

A high score in the first skill set indicates that your sensitivities and intelligence are strongest when paying attention to the qualities, such as the mood that shows on someone's face. You like to initiate things and have a fresh imagination for inventing options. You can immerse yourself in the present like a child. You enjoy art. You are creative and like to work with possibilities. You like spontaneity and freedom. It is relatively easy for you to be yourself and do your own thing without much regard for what others think.

A high score in the second skill set indicates that you are very capable of maintaining a focus on your own interests. You are not afraid to respond to others.

You can command the facts and fight for what you want. Working with others, you can tackle problems and get things done. Specific tasks are easy for you. You have a good memory and a sense of detail. You can be forceful and play the devil's advocate very well.

A high score in the third skill set indicates that your mind does very well with figuring out patterns of relationships. While you can learn from tradition, you can also organize yourself for the future and apply creative ideas. You can see the whole relational picture and are interested in patterns, laws, habits, and context. You like to pay attention to how people are interpreting what you say. You are a capable mediator. You are good at "if...then" thinking.

Take a minute and complete your profile by adding your remaining four percent to the skill set or sets you think appropriate.

Final Percentage

1st Set _____%
2nd Set _____%
3rd Set _____%

You might deepen your understanding of how these three skill sets operate in your life by making lists of how these skill sets play a part in your experience.

1) List experiences in which your strongest skill set has worked for you.
2) List experiences in which your most unpracticed skill set has worked against you.
3) List experiences in which you have used the remaining skill set.

Rarely will people show a perfect balance of all three skills at thirty-two percent each, nor is that necessarily desirable. Our aptitudes and experience lead most of us to develop a strongest skill area, a next strongest, and an unpracticed set—appropriate to our lives. For example, someone may show thirty-four percent in the third set, twelve percent in the second set, and fifty percent in the first skill set. This means that while that person has given thirty four percent of his or her energy to successfully developing skills, such as "if...then" reasoning, in the third set, he or she is unpracticed in dealing with the actual world, twelve percent, and strong in dealing with the intuitive realm of skills in the first set, fifty percent.

In Threeing, participants take turns playing three roles based on these three skill sets. By taking turns, they can learn from each other and complement each other's strengths. Each person increases his or her ability to perform in all three skill sets.

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Relationship Building / Group Communications

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"[Ryan changes] the fluidity of fantasy into a solid structure...[his] formalization of being three (Threeing) is completely astonishing."

—Alain Badiou, École Normale Supérieure

PAUL RYAN and his colleagues have used the process of Threeing to create collaboration within groups, including teenagers interpreting Central Park with video for New York City's Parks Council, K-12 public school teachers learning about sustainability, engineers from Pratt-Whitney searching for new jobs, professionals addressing climate change, editors publishing a bioregional journal in North Jersey, dancers performing with renowned tap dancer Brenda Bufalino, performers enacting a ritual for the MoMA exhibition, "Primitivism" in 20th Century Art: Affinity of the Tribal and the Modern," design students at Parsons The New School for Design, and communication students at Bozichi University in Istanbul.

Mr. Ryan's video art has been shown in Japan, Korea, Turkey, Israel, France, Germany, Holland, Spain, Denmark, Ecuador, Canada and throughout the United States. *Radical Software* published his seminal video writings. He authored *Cybernetics of the Sacred* and *Video Mind, Earth Mind*. NASA published his Earthscore Notational System. Mr. Ryan's conceptualization of a triadic program for a Hall of Risk in Lower Manhattan was presented at the 2002 Venice Biennial. Paul Ryan is currently an Associate Professor in the Graduate Media Studies Program at The New School in New York City. The Smithsonian Institution is archiving his papers and videotapes.

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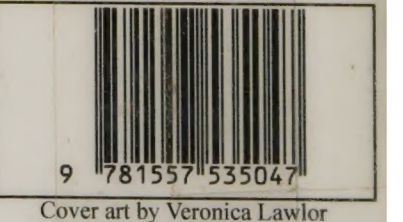

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